

Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date 6-12-09

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Source: <u>C BLAST FURNACE</u>	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
<u>Back DRAFT - Bleeders</u>	0					30	B	D	B	D	0	P	D	B	B	30	10	10	10	10
<u>Observation Point: EAST</u>	1					31	D	D	B	D	0	D	D	B	B	31	15	15	15	15
<u>OF STACK</u>	2					32	D	D	B	D	0	D	D	B	B	32	15	15	10	10
<u>Distance From: 500'</u>	3					33	D	D	B	D	0	D	D	B	B	33	10	10	10	10
<u>Source Height: 150'</u>	4					34	D	D	B	D	0	D	D	B	B	34	15	15	15	15
<u>Wind Direction: NORTH</u>	5					35	D	D	B	D	0	D	D	B	B	35	10	10	10	10
<u>Wind Speed: 5-10</u>	6					36	D	D	B	D	0	D	D	B	B	36	10	10	10	10
<u>Background(s) Used: SKY</u>	7					37	D	D	B	D	0	D	D	B	B	37	10	10	10	10
<u>9</u>	8					38	D	D	B	D	0	D	D	B	B	38	10	10	10	10
<u>10</u>	9					39	D	D	B	D	0	D	D	B	B	39	10	10	10	10
<u>Sky Conditions: Partly Cloudy</u>	11					40	D	D	B	D	0	D	D	B	B	40	10	10	10	10
<u>Ambient Temp: 58°</u>	12					41	D	D	B	D	0	D	D	B	B	41	10	10	10	10
<u>Humidity: (50%) 60%</u>	13					42	D	D	B	D	0	D	D	B	B	42	10	10	10	10
<u>Color of Emissions: Grey</u>	14					43	D	D	B	D	0	D	D	B	B	43	10	10	10	10
<u>15</u>	15					44	D	D	B	D	0	D	D	B	B	44	10	10	10	10
<u>Reading Cond.: Good</u>	16					45	D	D	B	D	0	D	D	B	B	45	10	10	10	10
<u>Observation</u>	17					46	D	D	B	D	0	D	D	B	B	46	10	10	10	10
<u>Began 0820 Ended: 0959</u>	18					47	D	D	B	D	0	D	D	B	B	47	10	10	10	10
<u>Observer's Signature:</u>	19					48	D	D	B	D	0	D	D	B	B	48	10	10	10	10
<u>C. Broda</u>	20					49	D	D	B	D	0	D	D	B	B	49	10	15	15	15
<u>Date Last Certified</u>	21					50	D	D	B	D	0	D	D	B	B	50	15	15	15	15
<u>3-11-09</u>	22					51	D	D	B	D	0	D	D	B	B	51	15	20	20	20
<u>Average Opacity (%)</u>	23					52	D	D	B	D	0	D	D	B	B	52	20	25	20	20
<u>Emission Point</u>	24					53	D	D	B	D	0	D	D	B	B	53	25	25	25	25
<u>Sun Shadow Line</u>	25					54	D	D	B	D	0	D	D	B	B	54	15	20	20	25
<u>Observer's Position</u>	26					55	D	D	B	D	0	D	D	B	B	55	20	35	35	30
	27					56	D	D	B	D	0	D	D	B	B	56	30	30	30	25
	28					57	D	D	B	D	0	D	D	B	B	57	25	25	15	15
	29					58	D	D	B	D	0	D	D	B	B	58	10	10	10	10
						59	D	D	B	D	0	D	D	B	B	59	10	10	10	10

Comments: Bleeder stacks CO mingling

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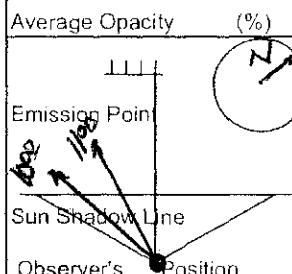
Observer: H ROBINSON

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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BLEEDERS & BACKDRAFT STACKS	0	15 ^B	15 ^B	15 ^B	15 ^B	30	BD	BD	BD	BD	0	0 ^B	0 ^B	0 ^B	0 ^B	30	0 ^B	0 ^B	0 ^B	0 ^B
Observation Point:	1	15 ^B	15 ^B	15 ^B	15 ^B	31	BD	BD	BD	BD	1	0 ^B	0 ^B	0 ^B	0 ^B	31	0 ^B	0 ^B	0 ^B	0 ^B
SOUTHEAST of SOURCE	2	15 ^B	15 ^B	15 ^B	15 ^B	32	BD	BD	BD	BD	2	0 ^B	0 ^B	0 ^B	0 ^B	32	0 ^B	0 ^B	0 ^B	0 ^B
Distance From:	3	15 ^B	15 ^B	15 ^B	15 ^B	33	BD	BD	BD	BD	3	0 ^B	0 ^B	0 ^B	0 ^B	33	0 ^B	0 ^B	0 ^B	0 ^B
900 ft.	4	15 ^B	15 ^B	15 ^B	15 ^B	34	BD	BD	BD	BD	4	0 ^B	0 ^B	0 ^B	0 ^B	34	0 ^B	0 ^B	0 ^B	0 ^B
Source Height: 150 ft	5	15 ^B	15 ^B	15 ^B	15 ^B	35	BD	BD	BD	BD	5	0 ^B	0 ^B	0 ^B	0 ^B	35	0 ^B	0 ^B	0 ^B	0 ^B
Wind Direction: N.E.	6	15 ^B	15 ^B	15 ^B	15 ^B	36	BD	BD	BD	BD	6	0 ^B	0 ^B	0 ^B	0 ^B	36	0 ^B	0 ^B	0 ^B	0 ^B
Wind Speed: 5-10 MPH	7	15 ^B	15 ^B	15 ^B	15 ^B	37	BD	BD	BD	BD	7	0 ^B	0 ^B	0 ^B	0 ^B	37	0 ^B	0 ^B	0 ^B	0 ^B
Background(s) Used:	8	15 ^B	15 ^B	15 ^B	15 ^B	38	BD	BD	BD	BD	8	0 ^B	0 ^B	0 ^B	0 ^B	38	0 ^B	0 ^B	0 ^B	0 ^B
Sky	9	15 ^B	15 ^B	15 ^B	15 ^B	39	BD	BD	BD	BD	9	0 ^B	0 ^B	0 ^B	0 ^B	39	0 ^B	0 ^B	0 ^B	0 ^B
	10	15 ^B	15 ^B	15 ^B	15 ^B	40	15 ^B	15 ^B	15 ^B	15 ^B	10	0 ^B	0 ^B	0 ^B	0 ^B	40	0 ^B	0 ^B	0 ^B	0 ^B
Sky Conditions: CLEAR	11	15 ^B	15 ^B	15 ^B	15 ^B	41	15 ^B	15 ^B	15 ^B	15 ^B	11	0 ^B	0 ^B	0 ^B	0 ^B	41	0 ^B	0 ^B	0 ^B	0 ^B
Ambient Temp.: 58°	12	15 ^B	15 ^B	15 ^B	15 ^B	42	15 ^B	10 ^B	10 ^B	10 ^B	12	0 ^B	0 ^B	0 ^B	0 ^B	42	0 ^B	0 ^B	0 ^B	0 ^B
Humidity: (50%) 50% >	13	15 ^B	15 ^B	15 ^B	15 ^B	43	15 ^B	10 ^B	10 ^B	10 ^B	13	0 ^B	0 ^B	0 ^B	0 ^B	43	0 ^B	0 ^B	0 ^B	0 ^B
Color of Emissions GRAY	14	15 ^B	15 ^B	15 ^B	15 ^B	44	15 ^B	15 ^B	15 ^B	15 ^B	14	0 ^B	0 ^B	0 ^B	0 ^B	44	0 ^B	0 ^B	0 ^B	0 ^B
	15	15 ^B	20 ^B	20 ^B	20 ^B	45	15 ^B	10 ^B	10 ^B	10 ^B	15	0 ^B	0 ^B	0 ^B	0 ^B	45	0 ^B	0 ^B	0 ^B	0 ^B
Reading Cond.: Good	16	20 ^B	20 ^B	20 ^B	20 ^B	46	10 ^B	10 ^B	10 ^B	10 ^B	16	0 ^B	0 ^B	0 ^B	0 ^B	46	0 ^B	0 ^B	0 ^B	0 ^B
Observation	17	20 ^B	20 ^B	20 ^B	20 ^B	47	10 ^B	10 ^B	0 ^B	0 ^B	17	0 ^B	0 ^B	0 ^B	0 ^B	47	0 ^B	0 ^B	0 ^B	0 ^B
Began: 10:00 Ended: 12:00	18	20 ^B	20 ^B	20 ^B	20 ^B	48	0 ^B	0 ^B	0 ^B	0 ^B	18	0 ^B	0 ^B	0 ^B	0 ^B	48	0 ^B	0 ^B	0 ^B	0 ^B
Observer's Signature:	19	20 ^B	20 ^B	20 ^B	20 ^B	49	0 ^B	0 ^B	0 ^B	0 ^B	19	0 ^B	0 ^B	0 ^B	0 ^B	49	0 ^B	0 ^B	0 ^B	0 ^B
Date Last Certified	20	25 ^B	25 ^B	25 ^B	25 ^B	50	0 ^B	0 ^B	0 ^B	0 ^B	20	0 ^B	0 ^B	0 ^B	0 ^B	50	0 ^B	0 ^B	0 ^B	0 ^B
	21	25 ^B	25 ^B	25 ^B	25 ^B	51	0 ^B	0 ^B	0 ^B	0 ^B	21	0 ^B	0 ^B	0 ^B	0 ^B	51	0 ^B	0 ^B	0 ^B	0 ^B
	22	25 ^B	25 ^B	25 ^B	25 ^B	52	0 ^B	0 ^B	0 ^B	0 ^B	22	0 ^B	0 ^B	0 ^B	0 ^B	52	0 ^B	0 ^B	0 ^B	0 ^B
	23	25 ^B	25 ^B	25 ^B	25 ^B	53	0 ^B	0 ^B	0 ^B	0 ^B	23	0 ^B	0 ^B	0 ^B	0 ^B	53	0 ^B	0 ^B	0 ^B	0 ^B
Average Opacity (%)	24	25 ^B	25 ^B	25 ^B	25 ^B	54	0 ^B	0 ^B	0 ^B	0 ^B	24	0 ^B	0 ^B	0 ^B	0 ^B	54	0 ^B	0 ^B	0 ^B	0 ^B
Emission Point	25	BD	BD	BD	BD	55	0 ^B	0 ^B	0 ^B	0 ^B	25	0 ^B	0 ^B	0 ^B	0 ^B	55	0 ^B	0 ^B	0 ^B	0 ^B
	26	25 ^B	25 ^B	25 ^B	25 ^B	56	0 ^B	0 ^B	0 ^B	0 ^B	26	0 ^B	0 ^B	0 ^B	0 ^B	56	0 ^B	0 ^B	0 ^B	0 ^B
	27	25 ^B	25 ^B	25 ^B	25 ^B	57	0 ^B	0 ^B	0 ^B	0 ^B	27	0 ^B	0 ^B	0 ^B	0 ^B	57	0 ^B	0 ^B	0 ^B	0 ^B
	28	25 ^B	25 ^B	25 ^B	25 ^B	58	0 ^B	0 ^B	0 ^B	0 ^B	28	0 ^B	0 ^B	0 ^B	0 ^B	58	0 ^B	0 ^B	0 ^B	0 ^B
	29	25 ^B	25 ^B	25 ^B	25 ^B	59	0 ^B	0 ^B	0 ^B	0 ^B	29	0 ^B	0 ^B	0 ^B	0 ^B	59	0 ^B	0 ^B	0 ^B	0 ^B

Comments:



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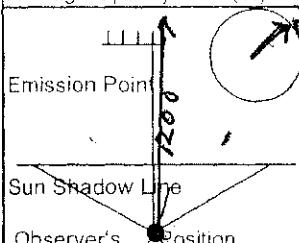
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Source:	<u>C Blast Furnace</u>	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Back Draft- Bleeders	0	B	B	B	B	30	B	B	B	B	0	10	10	15	15	30					
Observation Point: South East	1	O	O	O	O	31	O	O	O	O	1	15	25	25	25	31					
OF Stacks	2	O	O	O	O	32	O	O	O	O	2	25	30	30	35	32					
Distance From: 900'	3	O	O	O	O	33	O	O	O	O	3	35	25	45	45	33					
	4	O	O	O	O	34	O	O	O	O	4					34					
Source Height: 150'	5	O	O	O	O	35	O	O	O	O	5					35					
Wind Direction: N.E.	6	O	O	O	O	36	O	O	O	O	6					36					
Wind Speed: 5-10	7	O	O	O	O	37	O	O	O	O	7					37					
Background(s) Used: SKY	8	O	O	O	O	38	O	O	O	O	8					38					
	9	O	O	O	O	39	O	O	O	O	9					39					
	10	O	O	O	O	40	O	O	O	O	10					40					
Sky Conditions: Clear	11	O	O	O	O	41	O	O	O	O	11					41					
Ambient Temp.: 58°	12	O	O	O	O	42	O	O	O	O	12					42					
Humidity: (50%) 60%	13	O	O	O	O	43	O	O	O	O	13					43					
Color of Emissions: Grey	14	O	O	O	O	44	O	O	O	O	14					44					
	15	O	O	O	O	45	O	O	O	O	15					45					
Reading Cond.: Good	16	O	O	O	O	46	O	O	O	O	16					46					
Observation	17	O	O	O	O	47	O	O	O	O	17					47					
Began 1200 Ended: 1304	18	O	O	O	O	48	O	O	O	O	18					48					
Observer's Signature:	19	O	O	O	O	49	O	O	O	O	19					49					
<u>C. Broda</u>	20	O	O	O	O	50	O	O	O	O	20					50					
Date Last Certified	21	O	O	O	O	51	O	O	O	O	21					51					
3-11-09	22	O	O	O	O	52	O	O	O	O	22					52					
	23	O	O	O	O	53	O	O	O	O	23					53					
Average Opacity (%)	24	O	O	O	O	54	O	O	O	O	24					54					
Emission Point	25	O	O	O	O	55	O	O	O	O	25					55					
	26	O	O	O	O	56	O	O	O	O	26					56					
	27	O	O	O	O	57	O	O	O	O	27					57					
Sun Shadow Line	28	O	O	O	O	58	O	O	O	O	28					58					
Observer's Position	29	O	O	O	O	59	O	O	O	O	29					59					

Comments: .



Visible Emissions Observations- Burns Harbor

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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
C BLAST FURNACE	(M)	0				(M)	0				(M)	0				(M)	0			
BACK DRAFT - Bleeders	0				30					60	25	30	25	35	30	35	35	35	35	
Observation Point: S.E.	1				31					125	25	30	25	35	31	30	30	30	35	
OF STACK	2				32					225	25	30	25	35	32	30	30	25	25	
Distance From: 900'	3				33					325	25	20	20	30	33	35	30	25	30	
	4				34					420	25	25	25	20	34	25	20	20	15	
Source Height: 150'	5				35					515	15	15	15	15	35	15	20	15	15	
Wind Direction: NORTH	6				36					615	15	15	15	15	36	15	15	10	10	
Wind Speed: 5-10	7				37					715	15	15	15	15	37	10	15	10	10	
Background(s) Used: SKY	8				38					815	15	15	15	15	38	10	10	10	10	
	9				39					915	15	15	15	15	39	10	10	10	10	
	10				40					1015	15	15	15	15	40	10	0	0	0	
OVER EAST	11				41					1115	15	15	15	15	41	0	0	0	0	
Sky Conditions:	12				42					1215	25	35	35	35	42	0	0	0	0	
Ambient Temp. 56°	13				43					1350	55	35	35	35	43	0	0	0	0	
Humidity: (50% 60%) >	14				44	43.95				1435	40	35	35	35	44	0	0	0	0	
Color of Emissions: Grey	15				45					1535	35	35	35	35	45	0	0	0	0	
	16				46					1635	40	50	55	55	46	0	0	0	0	
Reading Cond.: Good	17				47					1755	55	0	55	55	47	0	0	0	0	
Observation	18				48					1853	65	60	65	65	48	0	0	0	0	
Began 0952 Ended: 1059	19				49					1965	70	60	60	60	49	0	0	0	0	
Observer's Signature:	20				50					2060	65	55	55	55	50	0	0	0	0	
	21				51					2155	50	50	50	50	51	0	0	0	0	
Date Last Certified	22									2250	60	60	60	60	52	0	0	0	0	
3-11-09	23									2360	65	55	55	55	53	0	0	0	0	
Average Opacity (%)	24									2455	60	60	60	60	54	0	0	0	0	
1111	25									2550	50	50	50	45	55	0	0	0	0	
Emission Point	26									2645	45	50	45	45	56	0	0	0	0	
	27									2745	40	40	35	35	57	0	0	0	0	
Sun Shadow Line	28									2845	50	40	40	40	58	0	0	0	0	
Observer's Position	29									2935	30	35	40	40	59	0	0	0	0	

Comments: NO 50A 0952-1000-1030-

D. Jefferson called 782 3401

Visible Emissions Observations- Burns Harbor

Observer: H. ROBINSON

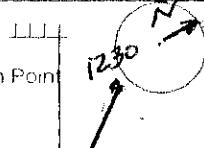
Date: 6-10-09

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BLAST		(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Source: C FURNACE	BLAST	0	0 ^B	0 ^B	0 ^B	0 ^B	36	70 ^B	70 ^B	70 ^B	70 ^B	0	-	-	-	-	30	0 ^B	0 ^B	0 ^B	0 ^B
BLEEDERS & BACKDRAFT STACKS	BLAST	1	0 ^B	0 ^B	0 ^B	0 ^B	31	70 ^B	70 ^B	70 ^B	70 ^B	1	-	-	-	-	31	0 ^B	0 ^B	0 ^B	0 ^B
Observation Point: SOUTHEAST of SOURCE	BLAST	2	0 ^B	0 ^B	0 ^B	0 ^B	32	5 ^B	5 ^B	8 ^B	8 ^B	2	-	-	-	-	32	0 ^B	0 ^B	5 ^B	25
Distance From:	BLAST	3	0 ^B	0 ^B	0 ^B	0 ^B	33	-	-	-	-	3	-	-	-	-	33	25	30	20	20
900 FT	BLAST	4	0 ^B	0 ^B	0 ^B	0 ^B	34	-	-	-	-	4	-	-	-	-	34	20	20	20	10
Source Height: 150 FT	BLAST	5	0 ^B	0 ^B	0 ^B	0 ^B	35	-	-	-	40	5	-	-	-	-	35	10	10	10	5
Wind Direction: NORTH	BLAST	6	0 ^B	0 ^B	0 ^B	0 ^B	36	40 ^B	40 ^B	40 ^B	40 ^B	6	-	-	-	-	36	0 ^B	0 ^B	0 ^B	0 ^B
Wind Speed: 5-10	BLAST	7	0 ^B	0 ^B	0 ^B	0 ^B	37	35 ^B	35 ^B	35 ^B	35 ^B	7	0 ^B	0 ^B	0 ^B	0 ^B	37	0 ^B	0 ^B	0 ^B	0 ^B
Background(s) Used:	BLAST	8	0 ^B	0 ^B	0 ^B	0 ^B	38	35 ^B	35 ^B	35 ^B	35 ^B	8	0 ^B	0 ^B	0 ^B	0 ^B	38	0 ^B	0 ^B	0 ^B	0 ^B
SKY	BLAST	9	0 ^B	0 ^B	0 ^B	0 ^B	39	50 ^B	50 ^B	35 ^B	5 ^B	9	-	-	-	-	39	0 ^B	0 ^B	0 ^B	0 ^B
	BLAST	10	0 ^B	0 ^B	0 ^B	0 ^B	40	80 ^B	-	-	-	10	-	-	-	-	40	0 ^B	0 ^B	0 ^B	0 ^B
Sky Conditions: OVERCAST	BLAST	11	0 ^B	0 ^B	0 ^B	0 ^B	41	-	-	-	-	11	-	-	-	-	41	0 ^B	15	15	5
Ambient Temp.: 56°	BLAST	12	0 ^B	0 ^B	0 ^B	0 ^B	42	-	-	-	-	12	-	0 ^B	0 ^B	0 ^B	42	0 ^B	0 ^B	0 ^B	0 ^B
Humidity: (50%) 50% >	BLAST	13	0 ^B	0 ^B	0 ^B	0 ^B	43	-	-	-	-	13	0 ^B	0 ^B	0 ^B	0 ^B	43	0 ^B	5	5	5
Color of Emissions: GRAY	BLAST	14	0 ^B	0 ^B	0 ^B	0 ^B	44	-	-	-	-	14	0 ^B	0 ^B	0 ^B	0 ^B	44	5 ^B	5 ^B	5 ^B	5 ^B
	BLAST	15	0 ^B	0 ^B	0 ^B	0 ^B	45	-	-	-	-	15	0 ^B	0 ^B	0 ^B	0 ^B	45	5 ^B	5 ^B	5 ^B	5 ^B
Reading Cond: GOOD	BLAST	16	0 ^B	0 ^B	0 ^B	0 ^B	46	-	-	-	-	16	0 ^B	0 ^B	0 ^B	0 ^B	46	5 ^B	5 ^B	5 ^B	15 ^B
Observation	BLAST	17	0 ^B	0 ^B	0 ^B	0 ^B	47	-	-	-	-	17	0 ^B	0 ^B	0 ^B	0 ^B	47	15	15	15	15
Began: 1100 Ended: 1259	BLAST	18	0 ^B	0 ^B	0 ^B	0 ^B	48	-	-	-	-	18	0 ^B	0 ^B	0 ^B	-	48	15	15	15	15
Observer's Signature:	BLAST	19	0 ^B	0 ^B	0 ^B	0 ^B	49	-	-	-	-	19	0 ^B	0 ^B	0 ^B	0 ^B	49	25	25	25	25
Harold Robinson	BLAST	20	0 ^B	0 ^B	0 ^B	0 ^B	50	-	-	-	-	20	0 ^B	0 ^B	0 ^B	0 ^B	50	25	25	25	25
Date Last Certified	BLAST	21	0 ^B	0 ^B	0 ^B	0 ^B	51	-	-	-	-	21	0 ^B	0 ^B	0 ^B	0 ^B	51	30	30	35	35
3-11-09	BLAST	22	0 ^B	0 ^B	10 ^B	10 ^B	52	-	-	-	-	22	0 ^B	0 ^B	0 ^B	0 ^B	52	35	35	40	40
	BLAST	23	15 ^B	15 ^B	15 ^B	15 ^B	53	-	-	-	-	23	0 ^B	0 ^B	0 ^B	0 ^B	53	40	40	40	40
Average Opacity (%)	BLAST	24	15 ^B	15 ^B	15 ^B	15 ^B	54	-	-	-	-	24	5 ^B	5 ^B	0 ^B	0 ^B	54	10	10	5	5
J.J.J.	BLAST	25	35 ^B	40 ^B	40 ^B	45 ^B	55	-	-	-	-	25	0 ^B	0 ^B	0 ^B	0 ^B	55	5	5	0 ^B	0 ^B
Emission Point: 1230	BLAST	26	45 ^B	50 ^B	50 ^B	50 ^B	56	-	-	-	-	26	0 ^B	0 ^B	0 ^B	0 ^B	56	0 ^B	0 ^B	0 ^B	0 ^B
	BLAST	27	60 ^B	60 ^B	60 ^B	65 ^B	57	-	-	-	-	27	0 ^B	0 ^B	0 ^B	0 ^B	57	15	15	15	10
Sun Shadow Line	BLAST	28	65 ^B	65 ^B	65 ^B	70 ^B	58	-	-	-	-	28	0 ^B	0 ^B	0 ^B	0 ^B	58	5	5	5	5
Observer's Position	BLAST	29	70 ^B	70 ^B	70 ^B	70 ^B	59	-	-	-	-	29	0 ^B	0 ^B	0 ^B	0 ^B	59	10	10	10	10

Comments: NO SUN VISIBLE 1100

(-) = BLEEDERS CLOSED



Visible Emissions Observations- Burns Harbor

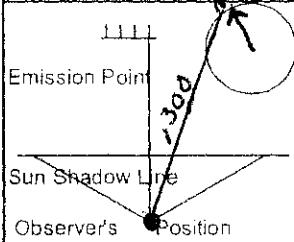
Observer: C. Broda

Date 6-10-09

Page 3 of 3

Source: <u>C Blast Furnace</u>	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Back DRAFT- Reader	0	10^8	10^8	10^8	10^8	30					0					30				
Observation Point: <u>S.E.</u>	1	10^8	10^8	10^8	10^8	31					1					31				
	2	10^8	10^8	10^8	10^8	32					2					32				
Distance From: <u>900'</u>	3	10^8	10^8	10^8	10^8	33					3					33				
	4	10^8	10^8	10^8	10^8	34					4					34				
Source Height: <u>150'</u>	5	10^8	10^8	10^8	10^8	35					5					35				
Wind Direction: <u>NORTH</u>	6	10^8	10^8	10^8	10^8	36					6					36				
Wind Speed: <u>5-10</u>	7	10^8	10^8	-	-	37					7					37				
Background(s) Used: <u>SKY</u>	8	-	-	-	-	38					8					38				
	9					39					9					39				
	10					40					10					40				
Sky Conditions: <u>PARTLY CLOUDY</u>	11					41					11					41				
Ambient Temp.: <u>57°</u>	12					42					12					42				
Humidity (50%) <u>60%</u>	13					43					13					43				
Color of Emissions: <u>Grey</u>	14					44					14					44				
	15					45					15					45				
Reading Cond.: <u>Good</u>	16					46					16					46				
Observation	17					47					17					47				
Began <u>1300</u> Ended: <u>1308</u>	18					48					18					48				
Observer's Signature:	19					49					19					49				
<u>C Broda</u>	20					50					20					50				
Date Last Certified	21					51					21					51				
<u>3-11-09</u>	22					52					22					52				
	23					53					23					53				
Average Opacity (%)	24					54					24					54				
Emission Point	25					55					25					55				
	26					56					26					56				
	27					57					27					57				
Sun Shadow Line	28					58					28					58				
Observer's Position	29					59					29					59				

Comments:



Visible Emissions Observations- Burns Harbor

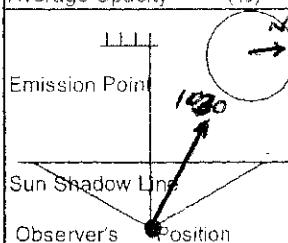
Observer: H. ROBINSON

Date 6-4-09

Page 1 of 3

Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
<u>BLEEDERS & BACKDRAFT STACKS</u>	0				30					0					30	BD	BD	BD	BD	
Observation Point:	1				31					1					31	O	O	O	O	
<u>EAST OF STACK</u>	2				32					2					32	BD	BD	BD	BD	
Distance From:	3				33					3					33	O	O	O	O	
<u>500 FT.</u>	4				34					4					34	BD	BD	BD	BD	
Source Height: <u>150 FT.</u>	5				35					5					35	BD	BD	BD	BD	
Wind Direction: <u>N</u>	6				36					6					36	O	O	O	O	
Wind Speed: <u>5-10 MPH</u>	7				37					7					37	BD	BD	BD	BD	
Background(s) Used:	8				38					8					38	BD	BD	BD	BD	
<u>Sky</u>	9				39					9					39	BD	BD	BD	BD	
	10				40					10					40	BD	BD	BD	BD	
Sky Conditions: <u>CLEAR</u>	11				41					11					41	O	O	O	O	
Ambient Temp. <u>56°</u>	12				42					12					42	O	O	O	O	
Humidity: (50%) 50% >	13				43					13					43	BD	BD	BD	BD	
Color of Emissions:	14				44					14					44	BD	BD	BD	BD	
	15				45					15					45	O	O	O	O	
Reading Cond.: <u>Good</u>	16				46					16					46	BD	BD	BD	BD	
Observation	17				47					17					47	O	O	O	O	
Began <u>1021</u> Ended: <u>1059</u>	18				48					18					48	BD	BD	BD	BD	
Observer's Signature	19				49					19					49	O	O	O	O	
<u>Charles Robinson</u>	20				50					20					50	O	O	O	O	
Date Last Certified	21				51					21					51	O	O	O	O	
<u>3-11-09</u>	22				52					22					52	O	O	O	O	
	23				53					23					53	BD	BD	BD	BD	
Average Opacity (%)	24				54					24					54	O	O	O	O	
Emission Point	25				55					25					55	BD	BD	BD	BD	
	26				56					26					56	O	O	O	O	
Sun Shadow Line	27				57					27	O	O	O	O	57	O	O	O	O	
Observer's Position	28				58					28	BD	BD	BD	BD	58	O	O	O	O	
	29				59					29	BD	BD	BD	BD	59	BD	BD	BD	BD	

Comments:



Visible Emissions Observations- Burns Harbor

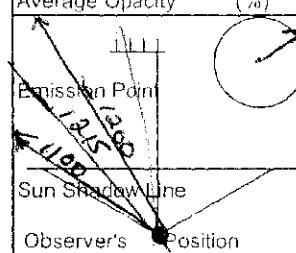
Observer C. Broda

Date 6-4-09

Page 2 of 3

Source: <u>C Blast Furnace</u>	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Bleeder Stack Draft	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	
Stacks	1	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	10	0	10	10
Observation Point:	1	8	0	8	0	31	8	0	8	0	1	0	0	0	0	0	10	0	10	10
South East of Stacks	2	8	0	8	0	32	8	0	8	0	2	0	0	0	65	0	10	0	10	10
Distance From: <u>900'</u>	3	8	0	8	0	33	8	0	8	0	3	15	10	10	10	33	0	0	0	0
Source Height: <u>150'</u>	4	8	0	8	0	34	8	0	8	0	4	15	15	15	15	34	0	10	0	10
Wind Direction: <u>N</u>	5	8	0	8	0	35	8	0	8	0	5	15	10	15	15	35	0	0	0	0
Wind Speed: <u>5-16</u>	6	8	0	8	0	36	8	0	8	0	6	15	15	15	10	36	0	0	0	0
Background(s) Used: <u>SKY</u>	7	8	0	8	0	37	8	0	8	0	7	10	15	15	15	37	0	0	0	0
	8	8	0	8	0	38	8	0	8	0	8	15	15	15	15	38	0	0	0	0
	9	8	0	8	0	39	8	0	8	0	9	15	15	15	15	39	0	0	0	0
Sky Conditions: <u>Clear</u>	10	8	0	8	0	40	8	0	8	0	10	15	15	15	15	40	0	0	0	0
Ambient Temp.: <u>56°</u>	11	8	0	8	0	41	8	0	8	0	11	15	15	15	15	41	0	0	0	0
Humidity: <u>50% < 50%</u>	12	8	0	8	0	42	8	0	8	0	12	15	15	20	20	42	0	0	0	0
Color of Emissions: <u>Grey</u>	13	8	0	8	0	43	8	0	8	0	13	15	20	15	15	43	0	0	0	0
Reading Cond.: <u>Good</u>	14	8	0	8	0	44	8	0	8	0	14	15	15	15	25	44	0	0	0	0
Observation	15	8	0	8	0	45	8	0	8	0	15	20	25	20	20	45	0	0	0	0
Began <u>1100</u> Ended: <u>1259</u>	16	8	0	8	0	46	8	0	8	0	16	15	20	15	15	46	0	0	0	0
Observer's Signature: <u>C. Broda</u>	17	8	0	8	0	47	8	0	8	0	17	25	20	25	25	47	0	0	0	0
Date Last Certified	18	8	0	8	0	48	8	0	8	0	18	15	15	15	75	48	0	0	0	0
Average Opacity (%)	19	8	0	8	0	49	8	0	8	0	19	20	25	15	75	49	0	0	0	0
Emission Point	20	8	0	8	0	50	8	0	8	0	20	15	15	15	75	50	0	0	0	0
Sun Shadow Line	21	8	0	8	0	51	8	0	8	0	21	15	10	10	0	51	0	0	0	0
Observer's Position	22	8	0	8	0	52	8	0	8	0	22	0	10	10	15	52	0	0	0	0
	23	8	0	8	0	53	8	0	8	0	23	15	15	15	15	53	0	0	0	0
	24	8	0	8	0	54	8	0	8	0	24	10	15	10	10	54	0	0	0	0
	25	8	0	8	0	55	8	0	8	0	25	10	10	15	15	55	0	0	0	0
	26	8	0	8	0	56	8	0	8	0	26	15	0	10	0	56	0	0	0	0
	27	8	0	8	0	57	8	0	8	0	27	10	15	10	10	57	0	0	0	0
	28	8	0	8	0	58	8	0	8	0	28	15	10	10	15	58	0	0	0	0
	29	8	0	8	0	59	8	0	8	0	29	15	10	0	0	59	0	0	0	0

Comments: Bleeder stacks coming L6 1222 Moved South West of stacks



Visible Emissions Observations- Burns Harbor

Observer: H. Robinson

Date 6-4-09

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Source: C-BLAST FURNACE	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BLEEDERS & BACKDRAFT Stack	0	8	8	8	8	30	8	8	8	8	0	8	8	8	8	30				
Observation Point:	1	0	0	0	0	31	0	0	0	0	1	0	0	0	0	31				
SOUTHWEST of source	2	8	8	8	8	32	8	8	8	8	2	8	8	8	8	32				
Distance From:	3	8	8	8	8	33	8	8	8	8	3	8	8	8	8	33				
900 ft.	4	8	8	8	8	34	8	8	8	8	4	8	8	8	8	34				
Source Height: 150 ft	5	8	8	8	8	35	8	8	8	8	5	8	8	8	8	35				
Wind Direction: NORTH	6	8	8	8	8	36	8	8	8	8	6	8	8	8	8	36				
Wind Speed: 5-10 MPH	7	8	8	8	8	37	8	8	8	8	7	8	8	8	8	37				
Background(s) Used:	8	8	8	8	8	38	8	8	8	8	8	8	8	8	8	38				
Sky	9	8	8	8	8	39	8	8	8	8	9	8	8	8	8	39				
	10	8	8	8	8	40	8	8	8	8	10	8	8	8	8	40				
Sky Conditions: CLEAR	11	8	8	8	8	41	8	8	8	8	11	8	8	8	8	41				
Ambient Temp.: 56°	12	8	8	8	8	42	8	8	8	8	12	15	15	15	15	42				
Humidity: (50%) 50% <	13	8	8	8	8	43	8	8	8	8	13	15	15	15	15	43				
Color of Emissions: GRAY	14	8	8	8	8	44	8	8	8	8	14	15	15	15	15	44				
	15	8	8	8	8	45	8	8	8	8	15	15	15	15	15	45				
Reading Cond.: GOOD	16	8	8	8	8	46	8	8	8	8	16	15	15	15	15	46				
Observation	17	8	8	8	8	47	8	8	8	8	17	20	25	35	5	47				
Began: 1300 Ended: 1418	18	8	8	8	8	48	8	8	8	8	18	8	8	8	8	48				
Observer's Signature: H. Robinson	19	8	8	8	8	49	8	8	8	8	19					49				
	20	8	8	8	8	50	8	8	8	8	20					50				
Date Last Certified	21	8	8	8	8	51	8	8	8	8	21					51				
3-11-09	22	8	8	8	8	52	8	8	8	8	22					52				
	23	8	8	8	8	53	8	8	8	8	23					53				
Average Opacity (%)	24	8	8	8	8	54	8	8	8	8	24					54				
Emission Point	25	8	8	8	8	55	8	8	8	8	25					55				
1300	26	8	8	8	8	56	8	8	8	8	26					56				
1400	27	8	8	8	8	57	8	8	8	8	27					57				
Sun Shadow Line	28	8	8	8	8	58	8	8	8	8	28					58				
Observer's Position	29	8	8	8	8	59	8	8	8	8	29					59				

Comments:

Visible Emissions Observations- Burns Harbor

Observer: H. ROBINSON

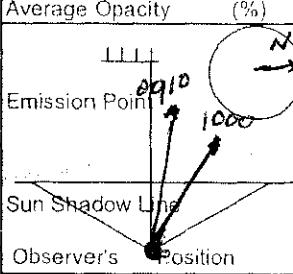
Date: 5-12-09

Page 1 of 3

Source: <u>C-FURNACE</u>	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BLEEDER & BACKDRAFT STACKS	0					30	BD	BD	BD	BD	0	25	25	25	25	30	BD	BD	BD	BD
Observation Point:	1					31	BD	BD	BD	BD	1	15	15	15	15	31	BD	BD	BD	BD
EAST of STACKS	2					32	BD	BD	BD	BD	2	15	15	15	15	32	BD	BD	BD	BD
Distance From:	3					33	BD	BD	BD	BD	3	40	40	40	40	33	BD	BD	BD	BD
525 ft.	4					34	BD	BD	BD	BD	4	BD	BD	BD	BD	34	BD	BD	BD	BD
Source Height: 150 ft	5	BD	BD	BD	BD	35	BD	BD	BD	BD	5	40	40	40	40	35	BD	BD	BD	BD
Wind Direction: SOUTH	6	BD	BD	BD	BD	36	BD	BD	BD	BD	6	40	40	40	40	36	BD	BD	BD	BD
Wind Speed: 5-10 mph	7	BD	BD	BD	BD	37	BD	BD	BD	BD	7	40	40	40	40	37	BD	BD	BD	BD
Background(s) Used:	8	BD	BD	BD	BD	38	BD	BD	BD	BD	8	40	40	40	40	38	BD	BD	BD	BD
SKY	9	BD	BD	BD	BD	39	BD	BD	BD	BD	9	40	40	40	40	39	BD	BD	BD	BD
	10	BD	BD	BD	BD	40	BD	BD	BD	BD	10	40	40	40	40	40	25	25	25	25
Sky Conditions: CLEAR	11	BD	BD	BD	BD	41	BD	BD	BD	BD	11	40	40	40	40	41	BD	BD	BD	BD
Ambient Temp.: 50°	12	BD	BD	BD	BD	42	BD	BD	BD	BD	12	40	40	40	40	42	25	25	25	25
Humidity: (50%) 50% >	13	BD	BD	BD	BD	43	BD	BD	BD	BD	13	40	40	40	40	43	25	25	25	25
Color of Emissions: GRAY	14	BD	BD	BD	BD	44	BD	BD	BD	BD	14	40	40	40	40	44	BD	BD	BD	BD
	15	BD	BD	BD	BD	45	70	60	55	55	15	40	40	40	40	45	20	20	20	20
Reading Cond.: Good	16	BD	BD	BD	BD	46	35	35	35	35	16	40	40	40	40	46	20	20	20	20
Observation	17	BD	BD	BD	BD	47	40	40	40	40	17	40	40	40	40	47	20	20	20	20
Began: 0905 Ended: 1059	18	BD	BD	BD	BD	48	40	40	40	40	18	40	40	40	40	48	25	25	25	25
Observer's Signature:	19	BD	BD	BD	BD	49	40	40	40	40	19	40	40	40	40	49	25	25	25	25
	20	BD	BD	BD	BD	50	40	35	35	35	20	40	40	40	40	50	25	25	25	25
Date Last Certified	21	BD	BD	BD	BD	51	35	35	35	35	21	BD	BD	BD	BD	51	20	20	20	20
3-11-09	22	BD	BD	BD	BD	52	35	35	35	35	22	30	30	30	30	52	10	10	10	10
	23	BD	BD	BD	BD	53	30	30	30	30	23	30	30	30	30	53	10	10	10	10
Average Opacity (%)	24	BD	BD	BD	BD	54	30	30	30	30	24	30	30	30	30	54	0	0	0	0
Emission Point	25	BD	BD	BD	BD	55	30	30	30	30	25	30	30	30	30	55	0	0	0	0
1000	26	BD	BD	BD	BD	56	30	30	30	30	26	30	30	30	30	56	0	0	0	0
1000	27	BD	BD	BD	BD	57	30	30	30	30	27	30	30	30	30	57	0	0	0	0
Sun Shadow Line	28	BD	BD	BD	BD	58	30	25	25	25	28	30	30	30	30	58	0	0	0	0
Observer's Position	29	BD	BD	BD	BD	59	25	25	25	25	29	30	30	30	30	59	0	0	0	0

Comments:

K93



Visible Emissions Observations- Burns Harbor

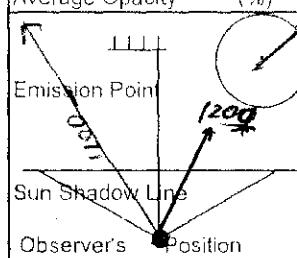
Observer C. Broda

Date 5-12-09

Page 2 of 3

Source: C-BF Bleeders	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BACK DRAFT STACKS	0	♂	♂	♂	♂	30	♂	♂	♂	♂	0	♂	♂	♂	♂	30	♂	♂	♂	♂
Observation Point: SE	1	♂	♂	♂	♂	31	♂	♂	♂	♂	1	♂	♂	♂	♂	31	♂	♂	♂	♂
OF STACKS	2	♂	♂	♂	♂	32	♂	♂	♂	♂	2	♂	♂	♂	♂	32	♂	♂	♂	♂
Distance From: 900'	3	♂	♂	♂	♂	33	♂	♂	♂	♂	3	♂	♂	♂	♂	33	♂	♂	♂	♂
	4	♂	♂	♂	♂	34	♂	♂	♂	♂	4	♂	♂	♂	♂	34	♂	♂	♂	♂
Source Height: 150'	5	♂	♂	♂	♂	35	♂	♂	♂	♂	5	♂	♂	♂	♂	35	♂	♂	♂	♂
Wind Direction: South	6	♂	♂	♂	♂	36	♂	♂	♂	♂	6	♂	♂	♂	♂	36	♂	♂	♂	♂
Wind Speed: 5-10	7	♂	♂	♂	♂	37	♂	♂	♂	♂	7	♂	♂	♂	♂	37	♂	♂	♂	♂
Background(s) Used: SKY	8	♂	♂	♂	♂	38	♂	♂	♂	♂	8	♂	♂	♂	♂	38	♂	♂	♂	♂
	9	♂	♂	♂	♂	39	♂	♂	♂	♂	9	♂	♂	♂	♂	39	♂	♂	♂	♂
	10	♂	♂	♂	♂	40	♂	♂	♂	♂	10	♂	♂	♂	♂	40	♂	♂	♂	♂
Sky Conditions: Clear	11	♂	♂	♂	♂	41	♂	♂	♂	♂	11	♂	♂	♂	♂	41	♂	♂	♂	♂
Ambient Temp.: 50°	12	♂	♂	♂	♂	42	♂	♂	♂	♂	12	♂	♂	♂	♂	42	♂	♂	♂	♂
Humidity: (50%) 60% >	13	♂	♂	♂	♂	43	♂	♂	♂	♂	13	♂	♂	♂	♂	43	♂	♂	♂	♂
Color of Emissions: Grey	14	♂	♂	♂	♂	44	♂	♂	♂	♂	14	♂	♂	♂	♂	44	♂	♂	♂	♂
	15	♂	♂	♂	♂	45	♂	♂	♂	♂	15	♂	♂	♂	♂	45	♂	♂	♂	♂
Brown	16	♂	♂	♂	♂	46	♂	♂	♂	♂	16	♂	♂	♂	♂	46	♂	♂	♂	♂
Reading Cond.: Good	17	♂	♂	♂	♂	47	♂	♂	♂	♂	17	♂	♂	♂	♂	47	♂	♂	♂	♂
Observation	18	♂	♂	♂	♂	48	♂	♂	♂	♂	18	♂	♂	♂	♂	48	♂	♂	♂	♂
Began 1100 Ended 1300	19	♂	♂	♂	♂	49	♂	♂	♂	♂	19	♂	♂	♂	♂	49	♂	♂	♂	♂
Observer's Signature:	20	♂	♂	♂	♂	50	♂	♂	♂	♂	20	♂	♂	♂	♂	50	♂	♂	♂	♂
Date Last Certified	21	♂	♂	♂	♂	51	♂	♂	♂	♂	21	♂	♂	♂	♂	51	♂	♂	♂	♂
3-11-09	22	♂	♂	♂	♂	52	♂	♂	♂	♂	22	♂	♂	♂	♂	52	♂	♂	♂	♂
	23	♂	♂	♂	♂	53	♂	♂	♂	♂	23	♂	♂	♂	♂	53	♂	♂	♂	♂
Average Opacity (%)	24	♂	♂	♂	♂	54	♂	♂	♂	♂	24	♂	♂	♂	♂	54	♂	♂	♂	♂
Emission Point	25	♂	♂	♂	♂	55	♂	♂	♂	♂	25	♂	♂	♂	♂	55	♂	♂	♂	♂
1100	26	♂	♂	♂	♂	56	♂	♂	♂	♂	26	♂	♂	♂	♂	56	♂	♂	♂	♂
1200	27	♂	♂	♂	♂	57	♂	♂	♂	♂	27	♂	♂	♂	♂	57	♂	♂	♂	♂
Sun Shadow Line	28	♂	♂	♂	♂	58	♂	♂	♂	♂	28	♂	♂	♂	♂	58	♂	♂	♂	♂
Observer's Position	29	♂	♂	♂	♂	59	♂	♂	♂	♂	29	♂	♂	♂	♂	59	♂	♂	♂	♂

Comments:



Visible Emissions Observations- Burns Harbor

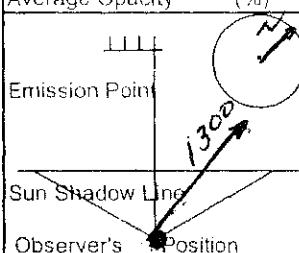
Observer: H. ROBINSON

Date 5-12-09

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Source: <u>C-FURNACE</u>	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
<u>BLEEDERS & BACKDRAFT STACKS</u>	0	15	15	15	15	30					0					30				
Observation Point:	1	15	15	15	15	31					1					31				
<u>SOUTHEAST OF STACKS</u>	2	15	15	15	15	32					2					32				
Distance From:	3	15	15	15	15	33					3					33				
<u>900 FT</u>	4	15	15	15	15	34					4					34				
Source Height: <u>150 FT</u>	5	15	15	0	0	35					5					35				
Wind Direction: <u>SOUTH</u>	6	0	0	0	0	36					6					36				
Wind Speed: <u>5-10 MPH</u>	7	0	0	0	0	37					7					37				
Background(s) Used:	8	0	0	0	0	38					8					38				
<u>SKY</u>	9	0	0	0	0	39					9					39				
	10	0	0	0	0	40					10					40				
Sky Conditions: <u>CLEAR</u>	11	0	0	0	0	41					11					41				
Ambient Temp.: <u>62°</u>	12	0	0	0	0	42					12					42				
Humidity: (50%) 50% >	13	0	0	0	0	43					13					43				
Color of Emissions: <u>GRAY</u>	14	0	0	0	0	44					14					44				
	15	0	0	0	0	45					15					45				
Reading Cond. <u>Good</u>	16	0	0	0	0	46					16					46				
Observation	17	0	0	0	0	47					17					47				
Began <u>1300</u> Ended <u>1325</u>	18	0	0	0	0	48					18					48				
Observer's Signature: <u>Harold Robinson</u>	19	0	0	0	0	49					19					49				
	20	0	0	0	0	50					20					50				
Date Last Certified	21	0	0	0	0	51					21					51				
<u>3-11-09</u>	22	0	0	0	0	52					22					52				
	23	0	0	0	0	53					23					53				
Average Opacity (%)	24	0	0	0	0	54					24					54				
Emission Point	25	0	0	0	0	55					25					55				
	26					56					26					56				
Sun Shadow Line	27					57					27					57				
Observer's Position	28					58					28					58				
	29					59					29					59				

Comments:



Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date 5-6-09

Page 1 of 7

Source: <u>C. BF Bleeders</u>	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
<u>Back Draft Stack</u>	0					30	80 80 80 80 15 15 15 15	30	8 8 8 8 0 0 0 0											
<u>Observation Point: EAST</u>	1					31	80 80 80 80 15 10 10 10	80 80 80 80 15 15 20 15	80 80 80 80 15 15 20 15	80 80 80 80 15 15 10 10	31	8 8 8 8 0 0 0 0								
<u>OF STACKS</u>	2					32	80 80 80 80 10 10 10 10	80 80 80 80 15 15 15 15	80 80 80 80 15 15 15 15	80 80 80 80 15 15 10 10	32	8 8 8 8 0 0 0 0								
<u>Distance from: 500'</u>	3					33	80 80 80 80 10 15 15 15	80 80 80 80 15 15 10 10	80 80 80 80 15 15 10 10	80 80 80 80 15 15 10 10	33	8 8 8 8 0 0 0 0								
<u>Source Height: 150'</u>	4					34	80 80 80 80 15 15 15 15	80 80 80 80 15 15 10 10	80 80 80 80 15 15 10 10	80 80 80 80 15 15 10 10	34	8 8 8 8 0 0 0 0								
<u>Wind Direction: South EAST</u>	5					35	80 80 80 80 15 15 15 15	80 80 80 80 15 15 15 15	80 80 80 80 15 15 15 15	80 80 80 80 15 15 10 10	35	8 8 8 8 0 0 0 0								
<u>Wind Speed: 5-10</u>	6					36	80 80 80 80 15 20 20 20	80 80 80 80 10 10 10 15	80 80 80 80 10 10 10 15	80 80 80 80 10 10 10 15	36	8 8 8 8 0 0 0 0								
<u>Background(s) Used:</u>	7					37	80 80 80 80 25 25 25 30	80 80 80 80 10 10 10 15	80 80 80 80 10 10 10 15	80 80 80 80 10 10 10 15	37	8 8 8 8 0 0 0 0								
<u>Sky</u>	8					38	80 80 80 80 30 25 25 25	80 80 80 80 10 10 10 10	80 80 80 80 10 10 10 10	80 80 80 80 10 10 10 10	38	8 8 8 8 0 0 0 0								
<u>Sky Conditions: overcast</u>	9					39	80 80 80 80 30 25 30 30	80 80 80 80 10 10 10 10	80 80 80 80 10 10 10 10	80 80 80 80 10 10 10 10	39	8 8 8 8 0 0 0 0								
<u>Ambient Temp.: 53°</u>	10	55	30	10	10	40	80 80 80 80 25 30 30 30	80 80 80 80 10 10 10 10	80 80 80 80 10 10 10 10	80 80 80 80 10 10 10 10	40	8 8 8 8 0 0 0 0								
<u>Humidity: (50% 50%)</u>	11	15	15	15	15	41	80 80 80 80 30 25 25 25	80 80 80 80 10 10 10 10	80 80 80 80 10 10 10 10	80 80 80 80 10 10 10 10	41	8 8 8 8 0 0 0 0								
<u>Color of Emissions: BLACK</u>	12	15	10	10	10	42	80 80 80 80 25 30 25 25	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	42	8 8 8 8 0 0 0 0								
<u>Grey</u>	13	10	10	10	10	43	80 80 80 80 25 25 25 25	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	43	8 8 8 8 0 0 0 0								
<u>Reading Cond.: Good</u>	14	10	15	15	15	44	80 80 80 80 25 25 30 30	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	44	8 8 8 8 0 0 0 0								
<u>Observation #</u>	15	15	15	15	15	45	80 80 80 80 25 25 25 25	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	45	8 8 8 8 0 0 0 0								
<u>Began 060 Ended 0800</u>	16	15	15	15	15	46	80 80 80 80 25 30 30 30	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	46	8 8 8 8 0 0 0 0								
<u>Observer's Signature:</u>	17	15	15	15	15	47	80 80 80 80 25 20 25 20	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	47	8 8 8 8 0 0 0 0								
<u>Date Last Certified</u>	18	15	15	15	15	48	80 80 80 80 20 20 20 20	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	48	8 8 8 8 0 0 0 0								
<u>3 - 11 - 09</u>	19	15	10	10	10	49	80 80 80 80 20 10 15 15	80 80 80 80 10 0 15 15	80 80 80 80 10 0 15 15	80 80 80 80 10 0 15 15	49	8 8 8 8 0 0 0 0								
<u>Average Opacity (%)</u>	20	10	10	10	10	50	80 80 80 80 15 15 15 15	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	50	8 8 8 8 0 0 0 0								
<u>Emission Point</u>	21	10	10	15	15	51	80 80 80 80 15 15 15 15	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	51	8 8 8 8 0 0 0 0								
<u>22</u>	15	15	15	15	15	52	80 80 80 80 15 15 15 15	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	52	8 8 8 8 0 0 0 0								
<u>23</u>	15	15	15	15	15	53	80 80 80 80 20 25 25 25	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	53	8 8 8 8 0 0 0 0								
<u>24</u>	15	15	15	15	15	54	80 80 80 80 15 15 15 15	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	54	8 8 8 8 0 0 0 0								
<u>25</u>	15	15	15	15	15	55	80 80 80 80 15 15 15 15	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	55	8 8 8 8 0 0 0 0								
<u>26</u>	15	15	15	15	15	56	80 80 80 80 15 15 15 15	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	56	8 8 8 8 0 0 0 0								
<u>27</u>	25	20	20	20	20	57	80 80 80 80 15 15 15 15	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	57	8 8 8 8 0 0 0 0								
<u>28</u>	25	20	10	10	10	58	80 80 80 80 15 20 15 20	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	58	8 8 8 8 0 0 0 0								
<u>Observer's Position</u>	29	10	10	10	10	59	80 80 80 80 20 15 15 15	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	80 80 80 80 10 0 0 0	59	8 8 8 8 0 0 0 0								

Comments: Bleeder stacks CO MINING

NO SUN 0610-0700

Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date 5-6-09

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Source: C-BF Bleeders	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BACK DRAFT STACKS	0	○	○	○	○	30	○	○	○	○	0	○	○	○	○	30	○	○	○	○
Observation Point: SE OF STACKS	1	○	○	○	○	31	○	○	○	○	1	○	○	○	○	31	○	○	○	○
Distance From: 900'	2	○	○	○	○	32	○	○	○	○	2	○	○	○	○	32	○	○	○	○
Source Height: 150'	3	○	○	○	○	33	○	○	○	○	3	○	○	○	○	33	○	○	○	○
Wind Direction: S E	4	○	○	○	○	34	○	○	○	○	4	○	○	○	○	34	○	○	○	○
Wind Speed: 5-10	5	○	○	○	○	35	○	○	○	○	5	○	○	○	○	35	○	○	○	○
Background(s) Used: SKY	6	○	○	○	○	36	○	○	○	○	6	○	○	○	○	36	○	○	○	○
Sky Conditions: overcast	7	○	○	○	○	37	○	○	○	○	7	○	○	○	○	37	○	○	○	○
Ambient Temp.: 57°	8	○	○	○	○	38	○	○	○	○	8	○	○	○	○	38	○	○	○	○
Humidity: (50%) 50%	9	○	○	○	○	39	○	○	○	○	9	○	○	○	○	39	○	○	○	○
Color of Emissions:	10	○	○	○	○	40	○	○	○	○	10	○	○	○	○	40	○	○	○	○
Reading Cond.: Good	11	○	○	○	○	41	○	○	○	○	11	○	○	○	○	41	○	○	○	○
Observation	12	○	○	○	○	42	○	○	○	○	12	○	○	○	○	42	○	○	○	○
Began 0800 Ended: 1000	13	○	○	○	○	43	○	○	○	○	13	○	○	○	○	43	○	○	○	○
Observer's Signature:	14	○	○	○	○	44	○	○	○	○	14	○	○	○	○	44	○	○	○	○
	15	○	○	○	○	45	○	○	○	○	15	○	○	○	○	45	○	○	○	○
Reading Cond.: Good	16	○	○	○	○	46	○	○	○	○	16	○	○	○	○	46	○	○	○	○
Observation	17	○	○	○	○	47	○	○	○	○	17	○	○	○	○	47	○	○	○	○
Began 0800 Ended: 1000	18	○	○	○	○	48	○	○	○	○	18	○	○	○	○	48	○	○	○	○
Observer's Signature:	19	○	○	○	○	49	○	○	○	○	19	○	○	○	○	49	○	○	○	○
Date Last Certified	20	○	○	○	○	50	○	○	○	○	20	○	○	○	○	50	○	○	○	○
3 - 11 - 09	21	○	○	○	○	51	○	○	○	○	21	○	○	○	○	51	○	○	○	○
Emission Point	22	○	○	○	○	52	○	○	○	○	22	○	○	○	○	52	○	○	○	○
	23	○	○	○	○	53	○	○	○	○	23	○	○	○	○	53	○	○	○	○
Average Opacity (%)	24	○	○	○	○	54	○	○	○	○	24	○	○	○	○	54	○	○	○	○
	25	○	○	○	○	55	○	○	○	○	25	○	○	○	○	55	○	○	○	○
	26	○	○	○	○	56	○	○	○	○	26	○	○	○	○	56	○	○	○	○
	27	○	○	○	○	57	○	○	○	○	27	○	○	○	○	57	○	○	○	○
Sun Shadow Line	28	○	○	○	○	58	○	○	○	○	28	○	○	○	○	58	○	○	○	○
Observer's Position	29	○	○	○	○	59	○	○	○	○	29	○	○	○	○	59	○	○	○	○

Comments: Bleeder STACKS CO MINING

NO SUN 0800 - NO SUN 0900

Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date: 5-6-09

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Source: C-BF Bleeders	(M) 0	15	30	45	(M) 0	15	30	45	(M) 0	15	30	45	(M) 0	15	30	45	
BACK DRAFT STACKS	0	○○○○○	30	○○○○○	0	○○○○○	30	○○○○○	0	○○○○○	30	○○○○○	0	○○○○○	30	○○○○○	0
Observation Point: SE. OF	1	○○○○○	31	○○○○○	1	○○○○○	31	○○○○○	1	○○○○○	31	○○○○○	1	○○○○○	31	○○○○○	1
STACKS	2	○○○○○	32	○○○○○	2	○○○○○	32	○○○○○	2	○○○○○	32	○○○○○	2	○○○○○	32	○○○○○	2
Distance From: 900'	3	○○○○○	33	○○○○○	3	○○○○○	33	○○○○○	3	○○○○○	33	○○○○○	3	○○○○○	33	○○○○○	3
	4	○○○○○	34	○○○○○	4	○○○○○	34	○○○○○	4	○○○○○	34	○○○○○	4	○○○○○	34	○○○○○	4
Source Height: 150'	5	○○○○○	35	○○○○○	5	○○○○○	35	○○○○○	5	○○○○○	35	○○○○○	5	○○○○○	35	○○○○○	5
Wind Direction: SE	6	○○○○○	36	○○○○○	6	○○○○○	36	○○○○○	6	○○○○○	36	○○○○○	6	○○○○○	36	○○○○○	6
Wind Speed: 5-10	7	○○○○○	37	○○○○○	7	○○○○○	37	○○○○○	7	○○○○○	37	○○○○○	7	○○○○○	37	○○○○○	7
Background(s) Used: SKY	8	○○○○○	38	○○○○○	8	○○○○○	38	○○○○○	8	○○○○○	38	○○○○○	8	○○○○○	38	○○○○○	8
	9	○○○○○	39	○○○○○	9	○○○○○	39	○○○○○	9	○○○○○	39	○○○○○	9	○○○○○	39	○○○○○	9
	10	○○○○○	40	○○○○○	10	○○○○○	40	○○○○○	10	○○○○○	40	○○○○○	10	○○○○○	40	○○○○○	10
Sky Conditions: over CAST	11	○○○○○	41	○○○○○	11	○○○○○	41	○○○○○	11	○○○○○	41	○○○○○	11	○○○○○	41	○○○○○	11
Ambient Temp: 57°	12	○○○○○	42	○○○○○	12	○○○○○	42	○○○○○	12	○○○○○	42	○○○○○	12	○○○○○	42	○○○○○	12
Humidity: (50% 50%)	13	○○○○○	43	○○○○○	13	○○○○○	43	○○○○○	13	○○○○○	43	○○○○○	13	○○○○○	43	○○○○○	13
Color of Emissions:	14	○○○○○	44	○○○○○	14	○○○○○	44	○○○○○	14	○○○○○	44	○○○○○	14	○○○○○	44	○○○○○	14
	15	○○○○○	45	○○○○○	15	○○○○○	45	○○○○○	15	○○○○○	45	○○○○○	15	○○○○○	45	○○○○○	15
Reading Cond: Good	16	○○○○○	46	○○○○○	16	○○○○○	46	○○○○○	16	○○○○○	46	○○○○○	16	○○○○○	46	○○○○○	16
Observation	17	○○○○○	47	○○○○○	17	○○○○○	47	○○○○○	17	○○○○○	47	○○○○○	17	○○○○○	47	○○○○○	17
Began 1000 Ended: 1100	18	○○○○○	48	○○○○○	18	○○○○○	48	○○○○○	18	○○○○○	48	○○○○○	18	○○○○○	48	○○○○○	18
Observer's Signature:	19	○○○○○	49	○○○○○	19	○○○○○	49	○○○○○	19	○○○○○	49	○○○○○	19	○○○○○	49	○○○○○	19
C. Broda	20	○○○○○	50	○○○○○	20	○○○○○	50	○○○○○	20	○○○○○	50	○○○○○	20	○○○○○	50	○○○○○	20
Date Last Certified	21	○○○○○	51	○○○○○	21	○○○○○	51	○○○○○	21	○○○○○	51	○○○○○	21	○○○○○	51	○○○○○	21
3-11-09	22	○○○○○	52	○○○○○	22	○○○○○	52	○○○○○	22	○○○○○	52	○○○○○	22	○○○○○	52	○○○○○	22
	23	○○○○○	53	○○○○○	23	○○○○○	53	○○○○○	23	○○○○○	53	○○○○○	23	○○○○○	53	○○○○○	23
Average Opacity (%)	24	○○○○○	54	○○○○○	24	○○○○○	54	○○○○○	24	○○○○○	54	○○○○○	24	○○○○○	54	○○○○○	24
Emission Point	25	○○○○○	55	○○○○○	25	○○○○○	55	○○○○○	25	○○○○○	55	○○○○○	25	○○○○○	55	○○○○○	25
26	○○○○○	56	○○○○○	26	○○○○○	56	○○○○○	26	○○○○○	56	○○○○○	26	○○○○○	56	○○○○○	26	
27	○○○○○	57	○○○○○	27	○○○○○	57	○○○○○	27	○○○○○	57	○○○○○	27	○○○○○	57	○○○○○	27	
Sun Shadow Line	28	○○○○○	58	○○○○○	28	○○○○○	58	○○○○○	28	○○○○○	58	○○○○○	28	○○○○○	58	○○○○○	28
Observer's Position	29	○○○○○	59	○○○○○	29	○○○○○	59	○○○○○	29	○○○○○	59	○○○○○	29	○○○○○	59	○○○○○	29

Comments: Bleeder stacks 20 Min. Link
NO SUN 1000 NO SUN 1100

Visible Emissions Observations- Burns Harbor

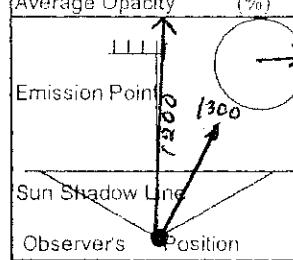
Observer: C. Broda/H. Robinson

Date 5-6-09

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Source	C-BF Bleeders	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BACK DRAFT STACKS		0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Observation Point:	SE	1	0	0	0	0	31	0	0	0	0	1	0	0	0	0	31	0	0	0	0
of stacks		2	0	0	0	0	32	0	0	0	0	2	0	0	0	0	32	0	0	0	0
Distance From:	900'	3	0	0	0	0	33	0	0	0	0	3	0	0	0	0	33	0	0	0	0
		4	0	0	0	0	34	0	0	0	0	4	0	0	0	0	34	0	0	0	0
Source Height:	150'	5	0	0	0	0	35	0	0	0	0	5	0	0	0	0	35	0	0	0	0
Wind Direction:	S.E.	6	0	0	0	0	36	0	0	0	0	6	0	0	0	0	36	0	0	0	0
Wind Speed:	5-10	7	0	0	0	0	37	0	0	0	0	7	0	0	0	0	37	0	0	0	0
Background(s) Used:	SKY	8	0	0	0	0	38	0	0	0	0	8	0	0	0	0	38	0	0	0	0
		9	0	0	0	0	39	0	0	0	0	9	0	0	0	0	39	0	0	0	0
		10	0	0	0	0	40	0	0	0	0	10	0	0	0	0	40	0	0	0	0
Sky Conditions:	PARTLY CLOUDY	11	0	0	0	0	41	0	0	0	0	11	0	0	0	0	41	0	0	0	0
Ambient Temp.:	57°	12	0	0	0	0	42	0	0	0	0	12	0	0	0	0	42	0	0	0	0
Humidity: (50%)	13	0	0	0	0	0	43	0	0	0	0	13	0	0	0	0	43	0	0	0	0
Color of Emissions:		14	0	0	0	0	44	0	0	0	0	14	0	0	0	0	44	0	0	0	0
		15	0	0	0	0	45	0	0	0	0	15	0	0	0	0	45	0	0	0	0
Reading Cond.:	Good	16	0	0	0	0	46	0	0	0	0	16	0	0	0	0	46	0	0	0	0
Observation		17	0	0	0	0	47	0	0	0	0	17	0	0	0	0	47	0	0	0	0
Began 1200 Ended 1359		18	0	0	0	0	48	0	0	0	0	18	0	0	0	0	48	0	0	0	0
Observer's Signature:		19	0	0	0	0	49	0	0	0	0	19	0	0	0	0	49	0	0	0	0
		20	0	0	0	0	50	0	0	0	0	20	0	0	0	0	50	0	0	0	0
Date Last Certified		21	0	0	0	0	51	0	0	0	0	21	0	0	0	0	51	0	0	0	0
3-11-09		22	0	0	0	0	52	0	0	0	0	22	0	0	0	0	52	0	0	0	0
		23	0	0	0	0	53	0	0	0	0	23	0	0	0	0	53	0	0	0	0
Average Opacity (%)		24	0	0	0	0	54	0	0	0	0	24	0	0	0	0	54	0	0	0	0
Emission Point		25	0	0	0	0	55	0	0	0	0	25	0	0	0	0	55	0	0	0	0
		26	0	0	0	0	56	0	0	0	0	26	0	0	0	0	56	0	0	0	0
Sun Shadow Line		27	0	0	0	0	57	0	0	0	0	27	0	0	0	0	57	0	0	0	0
Observer's Position		28	0	0	0	0	58	0	0	0	0	28	0	0	0	0	58	0	0	0	0
		29	0	0	0	0	59	0	0	0	0	29	0	0	0	0	59	0	0	0	0

Comments: Bleeder stacks coming in



Visible Emissions Observations- Burns Harbor

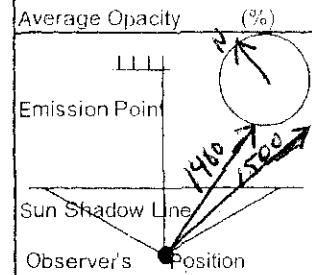
Observer: C. Broda

Date 5-6-09

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Source: C - BF Bleeders	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BACK Draft stacks	0	○	○	○	○	30	○	○	○	○	0	○	○	○	○	30	○	○	○	○
Observation Point: S W	1	○	○	○	○	31	○	○	○	○	1	○	○	○	○	31	○	○	○	○
OF STACKS	2	○	○	○	○	32	○	○	○	○	2	○	○	○	○	32	○	○	○	○
Distance From: 900'	3	○	○	○	○	33	○	○	○	○	3	○	○	○	○	33	○	○	○	○
	4	○	○	○	○	34	○	○	○	○	4	○	○	○	○	34	○	○	○	○
Source Height: 150'	5	○	○	○	○	35	○	○	○	○	5	○	○	○	○	35	○	○	○	○
Wind Direction: S.E.	6	○	○	○	○	36	○	○	○	○	6	○	○	○	○	36	○	○	○	○
Wind Speed: 5-10	7	○	○	○	○	37	○	○	○	○	7	○	○	○	○	37	○	○	○	○
Background(s) Used: SKY	8	○	○	○	○	38	○	○	○	○	8	○	○	○	○	38	○	○	○	○
	9	○	○	○	○	39	○	○	○	○	9	○	○	○	○	39	○	○	○	○
	10	○	○	○	○	40	○	○	○	○	10	○	○	○	○	40	○	○	○	○
Sky Conditions: Partly Cloudy	11	○	○	○	○	41	○	○	○	○	11	○	○	○	○	41	○	○	○	○
Ambient Temp.: 67°	12	○	○	○	○	42	○	○	○	○	12	○	○	○	○	42	○	○	○	○
Humidity (50%) 50%	13	○	○	○	○	43	○	○	○	○	13	○	○	○	○	43	○	○	○	○
Color of Emissions:	14	○	○	○	○	44	○	○	○	○	14	○	○	○	○	44	○	○	○	○
	15	○	○	○	○	45	○	○	○	○	15	○	○	○	○	45	○	○	○	○
Reading Cond.: Good	16	○	○	○	○	46	○	○	○	○	16	○	○	○	○	46	○	○	○	○
Observation	17	○	○	○	○	47	○	○	○	○	17	○	○	○	○	47	○	○	○	○
Began: 1400 Ended: 1559	18	○	○	○	○	48	○	○	○	○	18	○	○	○	○	48	○	○	○	○
Observer's Signature:	19	○	○	○	○	49	○	○	○	○	19	○	○	○	○	49	○	○	○	○
C. Broda	20	○	○	○	○	50	○	○	○	○	20	○	○	○	○	50	○	○	○	○
Date Last Certified	21	○	○	○	○	51	○	○	○	○	21	○	○	○	○	51	○	○	○	○
3-11-09	22	○	○	○	○	52	○	○	○	○	22	○	○	○	○	52	○	○	○	○
	23	○	○	○	○	53	○	○	○	○	23	○	○	○	○	53	○	○	○	○
Average Opacity (%)	24	○	○	○	○	54	○	○	○	○	24	○	○	○	○	54	○	○	○	○
Emission Point	25	○	○	○	○	55	○	○	○	○	25	○	○	○	○	55	○	○	○	○
Sun Shadow Line	26	○	○	○	○	56	○	○	○	○	26	○	○	○	○	56	○	○	○	○
Observer's Position	27	○	○	○	○	57	○	○	○	○	27	○	○	○	○	57	○	○	○	○
	28	○	○	○	○	58	○	○	○	○	28	○	○	○	○	58	○	○	○	○
	29	○	○	○	○	59	○	○	○	○	29	○	○	○	○	59	○	○	○	○

Comments:



Visible Emissions Observations- Burns Harbor

Observer: H. ROBINSON

Date: 5-6-09

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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BURNERS & BACKDRAFT STACKS	0	O	O	O	O	30	O	O	O	O	0	O	O	O	O	30	O	O	O	O
Observation Point:	1	O	O	O	O	31	O	O	O	O	1	O	O	O	O	31	O	O	O	O
WSW of STACKS	2	O	O	O	O	32	O	O	O	O	2	O	O	O	O	32	O	O	O	O
Distance From:	3	O	O	O	O	33	O	O	O	O	3	O	O	O	O	33	O	O	O	O
1500 FT	4	O	O	O	O	34	O	O	O	O	4	O	O	O	O	34	O	O	O	O
Source Height: 150 FT.	5	O	O	O	O	35	O	O	O	O	5	O	O	O	O	35	O	O	O	O
Wind Direction: SOUTHEAST	6	O	O	O	O	36	O	O	O	O	6	O	O	O	O	36	O	O	O	O
Wind Speed: 5-10 MPH	7	O	O	O	O	37	O	O	O	O	7	O	O	O	O	37	O	O	O	O
Background(s) Used: SKY	8	O	O	O	O	38	O	O	O	O	8	O	O	O	O	38	O	O	O	O
	9	O	O	O	O	39	O	O	O	O	9	O	O	O	O	39	O	O	O	O
	10	O	O	O	O	40	O	O	O	O	10	O	O	O	O	40	O	O	O	O
Sky Conditions: Partly Cloudy	11	O	O	O	O	41	O	O	O	O	11	O	O	O	O	41	O	O	O	O
Ambient Temp.: 68°	12	O	O	O	O	42	O	O	O	O	12	O	O	O	O	42	O	O	O	O
Humidity: (50%) 50% >	13	O	O	O	O	43	O	O	O	O	13	O	O	O	O	43	O	O	O	O
Color of Emissions:	14	O	O	O	O	44	O	O	O	O	14	O	O	O	O	44	O	O	O	O
	15	O	O	O	O	45	O	O	O	O	15	O	O	O	O	45	O	O	O	O
Reading Cond.: GOOD	16	O	O	O	O	46	O	O	O	O	16	O	O	O	O	46	O	O	O	O
Observation	17	O	O	O	O	47	O	O	O	O	17	O	O	O	O	47	O	O	O	O
Began: 1600 Ended: 1759	18	O	O	O	O	48	O	O	O	O	18	O	O	O	O	48	O	O	O	O
Observer's Signature:	19	O	O	O	O	49	O	O	O	O	19	O	O	O	O	49	O	O	O	O
<i>Harold Robinson</i>	20	O	O	O	O	50	O	O	O	O	20	O	O	O	O	50	O	O	O	O
Date Last Certified	21	O	O	O	O	51	O	O	O	O	21	O	O	O	O	51	O	O	O	O
3-11-09	22	O	O	O	O	52	O	O	O	O	22	O	O	O	O	52	O	O	O	O
	23	O	O	O	O	53	O	O	O	O	23	O	O	O	O	53	O	O	O	O
Average Opacity (%)	24	O	O	O	O	54	O	O	O	O	24	O	O	O	O	54	O	O	O	O
Emission Point	25	O	O	O	O	55	O	O	O	O	25	O	O	O	O	55	O	O	O	O
1111	26	O	O	O	O	56	O	O	O	O	26	O	O	O	O	56	O	O	O	O
1600	27	O	O	O	O	57	O	O	O	O	27	O	O	O	O	57	O	O	O	O
1700	28	O	O	O	O	58	O	O	O	O	28	O	O	O	O	58	O	O	O	O
Sun Shadow Line	29	O	O	O	O	59	O	O	O	O	29	O	O	O	O	59	O	O	O	O
Observer's Position																				

Comments:

Visible Emissions Observations- Burns Harbor

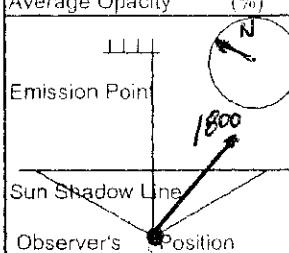
Observer: H. ROBINSON

Date 5-6-09

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Source:	C-FURNACE	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BLEEDERS & BACKDRAFT STACKS		0	O	O	O	O	30	O	O	O	O	0	O	O	O	O	30	O	O	O	O
Observation Point:		1	O	O	O	O	31	O	O	O	O	1	O	O	O	O	31	O	O	O	O
WSW OF STACKS		2	O	O	O	O	32	O	O	O	O	2	O	O	O	O	32	O	O	O	O
Distance From:		3	O	O	O	O	33	O	O	O	O	3	O	O	O	O	33	O	O	O	O
1500 FT		4	O	O	O	O	34	O	O	O	O	4	O	O	O	O	34	O	O	O	O
Source Height: 150 ft		5	O	O	O	O	35	O	O	O	O	5	O	O	O	O	35	O	O	O	O
Wind Direction: S.E.		6	O	O	O	O	36	O	O	O	O	6	O	O	O	O	36	O	O	O	O
Wind Speed: 5-10 MPH		7	O	O	O	O	37	O	O	O	O	7	O	O	O	O	37	O	O	O	O
Background(s) Used:		8	O	O	O	O	38	O	O	O	O	8	O	O	O	O	38	O	O	O	O
Sky		9	O	O	O	O	39	O	O	O	O	9	O	O	O	O	39	O	O	O	O
Sky Conditions: Partly cloudy		10	O	O	O	O	40	O	O	O	O	10	O	O	O	O	40	O	O	O	O
Ambient Temp.: 65°		11	O	O	O	O	41	O	O	O	O	11	O	O	O	O	41	O	O	O	O
Humidity: (50%) 50% >		12	O	O	O	O	42	O	O	O	O	12	O	O	O	O	42	O	O	O	O
Color of Emissions:		13	O	O	O	O	43	O	O	O	O	13	O	O	O	O	43	O	O	O	O
		14	O	O	O	O	44	O	O	O	O	14	O	O	O	O	44	O	O	O	O
Reading Cond.: Good		15	O	O	O	O	45	O	O	O	O	15	O	O	O	O	45	O	O	O	O
Observation		16	O	O	O	O	46	O	O	O	O	16	O	O	O	O	46	O	O	O	O
Began: 1800 Ended: 1952		17	O	O	O	O	47	O	O	O	O	17	O	O	O	O	47	O	O	O	O
Observer's Signature: Harold Robinson		18	O	O	O	O	48	O	O	O	O	18	O	O	O	O	48	O	O	O	O
Date Last Certified		19	O	O	O	O	49	O	O	O	O	19	O	O	O	O	49	O	O	O	O
3-11-09		20	O	O	O	O	50	O	O	O	O	20	O	O	O	O	50	O	O	O	O
		21	O	O	O	O	51	O	O	O	O	21	O	O	O	O	51	O	O	O	O
		22	O	O	O	O	52	O	O	O	O	22	O	O	O	O	52	O	O	O	O
		23	O	O	O	O	53	O	O	O	O	23	O	O	O	O	53				
Average Opacity (%)		24	O	O	O	O	54	O	O	O	O	24	O	O	O	O	54				
Emission Point		25	O	O	O	O	55	O	O	O	O	25	O	O	O	O	55				
		26	O	O	O	O	56	O	O	O	O	26	O	O	O	O	56				
Sun Shadow Line		27	O	O	O	O	57	O	O	O	O	27	O	O	O	O	57				
Observer's Position		28	O	O	O	O	58	O	O	O	O	28	O	O	O	O	58				
		29	O	O	O	O	59	O	O	O	O	29	O	O	O	O	59				

Comments: NO SUN visible 1900



Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date: 4-29-09

Page 1 of 6

Source: C-BF Bleeders	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BACK DRAFT STACKS	0					30					0	15	15	15	15	30	15	25	15	20
Observation Point: S.E.	1					31					1	15	15	15	15	31	25	25	15	10
OF STACKS	2					32					2	15	15	10	10	32	10	10	15	15
Distance From: 900'	3					33					3	10	10	10	10	33	15	10	10	10
	4					34					4	10	10	10	10	34	0	0	0	0
Source Height: 150'	5					35					5	10	0	0	0	35	0	0	0	0
Wind Direction: EAST	6					36					6	0	0	0	0	36	0	0	0	0
Wind Speed: 5-10	7					37					7	0	0	0	0	37	0	0	0	0
Background(s) Used: SKY	8					38					8	0	0	0	0	38	0	0	0	0
	9					39					9	15	15	15	15	39	0	0	0	0
	10					40					10	0	0	0	0	40	0	0	0	0
Sky Conditions: OVERCAST	11					41					11	0	0	0	0	41	0	0	0	0
Ambient Temp.: 47°	12					42					12	0	0	0	0	42	0	0	0	0
Humidity: (50%) 60%	13					43					13	0	0	0	0	43	0	0	0	0
Color of Emissions: Grey	14					44					14	0	0	0	0	44	0	0	0	0
	15					45					15	0	0	0	0	45	0	0	0	0
Reading Cond.: Good	16					46					16	0	0	0	0	46	0	0	0	0
Observation	17					47					17	0	0	0	0	47	0	0	0	0
Began 0848 Ended 1000	18					48	10	10	10	10	18	0	0	15	15	48	0	0	0	0
Observer's Signature:	19					49	10	10	10	10	19	0	0	0	0	49	0	0	0	0
C. Broda	20					50	10	10	10	10	20	10	18	0	0	50	0	0	0	0
Date Last Certified	21					51	10	10	10	10	21	10	10	10	15	51	0	0	0	0
3-11-09	22					52	10	15	15	15	22	15	15	10	10	52	0	0	0	0
	23					53	10	15	10	10	23	15	15	15	15	53	0	0	0	0
Average Opacity (%)	24					54	0	10	10	10	24	10	10	10	10	54	0	0	0	0
Emission Point	25					55	10	15	15	10	25	0	0	0	0	55	0	0	0	0
	26					56	15	15	15	15	26	0	0	0	0	56	0	0	0	0
	27					57	10	15	15	15	27	0	0	0	0	57	0	0	0	0
Sun Shadow Line	28					58	15	15	10	10	28	15	15	15	15	58	0	0	0	0
Observer's Position	29					59	15	15	15	15	29	15	20	15	25	59	0	0	0	0

Comments: NO SUN 0848 Bleeder stacks comingling NO SUN 0900
 Back Draft stack comingling with Bleeder stacks

Visible Emissions Observations- Burns Harbor

Observer H. Robinson

Date 4-29-09

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Source:	C-furnace	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BLEEDERS & BACKDRAFT STACKS		0	O ^B	O ^B	O ^B	O ^B	30	O ^B	O ^B	O ^B	O ^B	0	O ^B	O ^B	O ^B	O ^B	30	O ^B	O ^B	O ^B	
Observation Point:		1	O ^B	O ^B	O ^B	O ^B	31	O ^B	O ^B	O ^B	O ^B	1	O ^B	O ^B	O ^B	O ^B	31	O ^B	O ^B	O ^B	
S.E. of stacks		2	O ^B	O ^B	O ^B	O ^B	32	O ^B	O ^B	O ^B	O ^B	2	O ^B	O ^B	O ^B	O ^B	32	O ^B	O ^B	O ^B	
Distance From:		3	O ^B	O ^B	O ^B	O ^B	33	O ^B	O ^B	O ^B	O ^B	3	O ^B	O ^B	O ^B	O ^B	33	O ^B	O ^B	O ^B	
900ft.		4	O ^B	O ^B	O ^B	O ^B	34	O ^B	O ^B	O ^B	O ^B	4	O ^B	O ^B	O ^B	O ^B	34	O ^B	O ^B	O ^B	
Source Height: 150 ft.		5	O ^B	O ^B	O ^B	O ^B	35	O ^B	O ^B	O ^B	O ^B	5	O ^B	O ^B	O ^B	O ^B	35	O ^B	O ^B	O ^B	
Wind Direction: EAST		6	O ^B	O ^B	O ^B	O ^B	36	O ^B	O ^B	O ^B	O ^B	6	O ^B	O ^B	O ^B	O ^B	36	O ^B	O ^B	O ^B	
Wind Speed: 5-10 MPH		7	O ^B	O ^B	O ^B	O ^B	37	O ^B	O ^B	O ^B	O ^B	7	O ^B	O ^B	O ^B	O ^B	37	O ^B	O ^B	O ^B	
Background(s) Used: SKY		8	O ^B	O ^B	O ^B	O ^B	38	O ^B	O ^B	O ^B	O ^B	8	O ^B	O ^B	O ^B	O ^B	38	O ^B	O ^B	O ^B	
		9	O ^B	O ^B	O ^B	O ^B	39	O ^B	O ^B	O ^B	O ^B	9	O ^B	O ^B	O ^B	O ^B	39	O ^B	O ^B	O ^B	
		10	O ^B	O ^B	O ^B	O ^B	40	O ^B	O ^B	O ^B	O ^B	10	O ^B	O ^B	O ^B	O ^B	40	O ^B	O ^B	O ^B	
Sky Conditions: OVERCAST		11	O ^B	O ^B	O ^B	O ^B	41	O ^B	O ^B	O ^B	O ^B	11	O ^B	O ^B	O ^B	O ^B	41	O ^B	O ^B	O ^B	
Ambient Temp.: 47°		12	O ^B	O ^B	O ^B	O ^B	42	O ^B	O ^B	O ^B	O ^B	12	O ^B	O ^B	O ^B	O ^B	42	O ^B	O ^B	O ^B	
Humidity: (50%) 50% >		13	O ^B	O ^B	O ^B	O ^B	43	O ^B	O ^B	O ^B	O ^B	13	O ^B	O ^B	O ^B	O ^B	43	O ^B	O ^B	O ^B	
Color of Emissions:		14	O ^B	O ^B	O ^B	O ^B	44	O ^B	O ^B	O ^B	O ^B	14	O ^B	O ^B	O ^B	O ^B	44	O ^B	O ^B	O ^B	
		15	O ^B	O ^B	O ^B	O ^B	45	O ^B	O ^B	O ^B	O ^B	15	O ^B	O ^B	O ^B	O ^B	45	O ^B	O ^B	O ^B	
Reading Cond.: Good		16	O ^B	O ^B	O ^B	O ^B	46	O ^B	O ^B	O ^B	O ^B	16	O ^B	O ^B	O ^B	O ^B	46	O ^B	O ^B	O ^B	
Observation		17	O ^B	O ^B	O ^B	O ^B	47	O ^B	O ^B	O ^B	O ^B	17	O ^B	O ^B	O ^B	O ^B	47	O ^B	O ^B	O ^B	
Began: 1000 Ended: 1159		18	O ^B	O ^B	O ^B	O ^B	48	O ^B	O ^B	O ^B	O ^B	18	O ^B	O ^B	O ^B	O ^B	48	O ^B	O ^B	O ^B	
Observer's Signature:		19	O ^B	O ^B	O ^B	O ^B	49	O ^B	O ^B	O ^B	O ^B	19	O ^B	O ^B	O ^B	O ^B	49	O ^B	O ^B	O ^B	
<u>Harold Robinson</u>		20	O ^B	O ^B	O ^B	O ^B	50	O ^B	O ^B	O ^B	O ^B	20	O ^B	O ^B	O ^B	O ^B	50	O ^B	O ^B	O ^B	
Date Last Certified		21	O ^B	O ^B	O ^B	O ^B	51	O ^B	O ^B	O ^B	O ^B	21	O ^B	O ^B	O ^B	O ^B	51	O ^B	O ^B	O ^B	
3-11-09		22	O ^B	O ^B	O ^B	O ^B	52	O ^B	O ^B	O ^B	O ^B	22	O ^B	O ^B	O ^B	O ^B	52	O ^B	O ^B	O ^B	
Average Opacity (%)		23	O ^B	O ^B	O ^B	O ^B	53	O ^B	O ^B	O ^B	O ^B	23	O ^B	O ^B	O ^B	O ^B	53	O ^B	O ^B	O ^B	
		24	O ^B	O ^B	O ^B	O ^B	54	O ^B	O ^B	O ^B	O ^B	24	O ^B	O ^B	O ^B	O ^B	54	O ^B	O ^B	O ^B	
Emission Point		25	O ^B	O ^B	O ^B	O ^B	55	O ^B	O ^B	O ^B	O ^B	25	O ^B	O ^B	O ^B	O ^B	55	O ^B	O ^B	O ^B	
		26	O ^B	O ^B	O ^B	O ^B	56	O ^B	O ^B	O ^B	O ^B	26	O ^B	O ^B	O ^B	O ^B	56	O ^B	O ^B	O ^B	
Sun Shadow Line		27	O ^B	O ^B	O ^B	O ^B	57	O ^B	O ^B	O ^B	O ^B	27	O ^B	O ^B	O ^B	O ^B	57	O ^B	O ^B	O ^B	
Observer's Position		28	O ^B	O ^B	O ^B	O ^B	58	O ^B	O ^B	O ^B	O ^B	28	O ^B	O ^B	O ^B	O ^B	58	O ^B	O ^B	O ^B	
		29	O ^B	O ^B	O ^B	O ^B	59	O ^B	O ^B	O ^B	O ^B	29	O ^B	O ^B	O ^B	O ^B	59	O ^B	O ^B	O ^B	

Comments: NO SUN visible 1000
H 11 11 1100

Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date: 4-29-09

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Source: C. BF Blowers	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Back Draft Stacks	0	B	B	B	B	30	B	B	B	B	0	B	B	B	30	B	B	B	B	
Observation Point: S.E.	1	B	B	B	B	31	B	B	B	B	1	B	B	B	31	B	B	B	B	
OF stacks	2	B	B	B	B	32	B	B	B	B	2	B	B	B	32	B	B	B	B	
Distance From: 0900'	3	B	B	B	B	33	B	B	B	B	3	B	B	B	33	B	B	B	B	
	4	B	B	B	B	34	B	B	B	B	4	B	B	B	34	B	B	B	B	
Source Height: 150'	5	B	B	B	B	35	B	B	B	B	5	B	B	B	35	B	B	B	B	
Wind Direction: EAST	6	B	B	B	B	36	B	B	B	B	6	B	B	B	36	B	B	B	B	
Wind Speed: 5-10	7	B	B	B	B	37	B	B	B	B	7	B	B	B	37	B	B	B	B	
Background(s) Used: SKY	8	B	B	B	B	38	B	B	B	B	8	B	B	B	38	B	B	B	B	
	9	B	B	B	B	39	B	B	B	B	9	B	B	B	39	B	B	B	B	
	10	B	B	B	B	40	B	B	B	B	10	B	B	B	40	B	B	B	B	
Sky Conditions: OVERCAST	11	B	B	B	B	41	B	B	B	B	11	B	B	B	41	B	B	B	B	
Ambient Temp.: 51°	12	B	B	B	B	42	B	B	B	B	12	B	B	B	42	B	B	B	B	
Humidity: (50% 50%) >	13	B	B	B	B	43	B	B	B	B	13	B	B	B	43	B	B	B	B	
Color of Emissions	14	B	B	B	B	44	B	B	B	B	14	B	B	B	44	B	B	B	B	
	15	B	B	B	B	45	B	B	B	B	15	B	B	B	45	B	B	B	B	
Reading Cond.: Good	16	B	B	B	B	46	B	B	B	B	16	B	B	B	46	B	B	B	B	
Observation	17	B	B	B	B	47	B	B	B	B	17	B	B	B	47	B	B	B	B	
Began: 1200 Ended: 1359	18	B	B	B	B	48	B	B	B	B	18	B	B	B	48	B	B	B	B	
Observer's Signature:	19	B	B	B	B	49	B	B	B	B	19	B	B	B	49	B	B	B	B	
C. Broda	20	B	B	B	B	50	B	B	B	B	20	B	B	B	50	B	B	B	B	
Date Last Certified	21	B	B	B	B	51	B	B	B	B	21	B	B	B	51	B	B	B	B	
3-11-09	22	B	B	B	B	52	B	B	B	B	22	B	B	B	52	B	B	B	B	
	23	B	B	B	B	53	B	B	B	B	23	B	B	B	53	B	B	B	B	
Average Opacity (%)	24	B	B	B	B	54	B	B	B	B	24	B	B	B	54	B	B	B	B	
1111	25	B	B	B	B	55	B	B	B	B	25	B	B	B	55	B	B	B	B	
Emission Point	26	B	B	B	B	56	B	B	B	B	26	B	B	B	56	B	B	B	B	
	27	B	B	B	B	57	B	B	B	B	27	B	B	B	57	B	B	B	B	
Sun Shadow Line	28	B	B	B	B	58	B	B	B	B	28	B	B	B	58	B	B	B	B	
Observer's Position	29	B	B	B	B	59	B	B	B	B	29	B	B	B	59	B	B	B	B	

Comments: NO SUN 1200 Blower stacks Co MINGLING NO SUN 1300

Visible Emissions Observations- Burns Harbor

Observer: H. ROBINSON

Date: 4-29-09

Page: 4 of 6

Source: C-FURNACE	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BLEEDERS & BACKDEW STACKS	0	O	O	O	O	36	O	O	O	O	60	O	O	O	O	30	O	O	O	O
Observation Point:	1	O	O	O	O	37	O	O	O	O	61	O	O	O	O	31	O	O	O	O
S.W. of STACKS	2	O	O	O	O	38	O	O	O	O	62	O	O	O	O	32	O	O	O	O
Distance From:	3	O	O	O	O	39	O	O	O	O	63	O	O	O	O	33	O	O	O	O
900 ft	4	O	O	O	O	40	O	O	O	O	64	O	O	O	O	34	O	O	O	O
Source Height: 150ft	5	O	O	O	O	41	O	O	O	O	65	O	O	O	O	35	O	O	O	O
Wind Direction: EAST	6	O	O	O	O	42	O	O	O	O	66	O	O	O	O	36	O	O	O	O
Wind Speed: 5-10 MPH	7	O	O	O	O	43	O	O	O	O	67	O	O	O	O	37	O	O	O	O
Background(s) Used: SKY	8	O	O	O	O	44	O	O	O	O	68	O	O	O	O	38	O	O	O	O
	9	O	O	O	O	45	O	O	O	O	69	O	O	O	O	39	O	O	O	O
	10	O	O	O	O	46	O	O	O	O	70	O	O	O	O	40	O	O	O	O
Sky Conditions OVERCAST	11	O	O	O	O	47	O	O	O	O	71	O	O	O	O	41	O	O	O	O
Ambient Temp: 50°	12	O	O	O	O	48	O	O	O	O	72	O	O	O	O	42	O	O	O	O
Humidity: (50% > 50%)	13	O	O	O	O	49	O	O	O	O	73	O	O	O	O	43	O	O	O	O
Color of Emissions:	14	O	O	O	O	50	O	O	O	O	74	O	O	O	O	44	O	O	O	O
	15	O	O	O	O	51	O	O	O	O	75	O	O	O	O	45	O	O	O	O
Reading Cond.: GOOD	16	O	O	O	O	52	O	O	O	O	76	O	O	O	O	46	O	O	O	O
Observation	17	O	O	O	O	53	O	O	O	O	77	O	O	O	O	47	O	O	O	O
Began: 1400 Ended: 1559	18	O	O	O	O	54	O	O	O	O	78	O	O	O	O	48	O	O	O	O
Observer's Signature:	19	O	O	O	O	55	O	O	O	O	79	O	O	O	O	49	O	O	O	O
Paradig Robinson	20	O	O	O	O	56	O	O	O	O	80	O	O	O	O	50	O	O	O	O
Date Last Certified	21	O	O	O	O	57	O	O	O	O	81	O	O	O	O	51	O	O	O	O
3-11-09	22	O	O	O	O	58	O	O	O	O	82	O	O	O	O	52	O	O	O	O
	23	O	O	O	O	59	O	O	O	O	83	O	O	O	O	53	O	O	O	O
Average Opacity (%)	24	O	O	O	O	60	O	O	O	O	84	O	O	O	O	54	O	O	O	O
	25	O	O	O	O	61	O	O	O	O	85	O	O	O	O	55	O	O	O	O
Emission Point	26	O	O	O	O	62	O	O	O	O	86	O	O	O	O	56	O	O	O	O
	27	O	O	O	O	63	O	O	O	O	87	O	O	O	O	57	O	O	O	O
Sun Shadow Line	28	O	O	O	O	64	O	O	O	O	88	O	O	O	O	58	O	O	O	O
Observer's Position	29	O	O	O	O	65	O	O	O	O	89	O	O	O	O	59	O	O	O	O

Comments: NO SUN visible 1400
" " " 1500

Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date: 4-29-09

Page: 5 of 6

Source C.B.F. Bleeder	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Back Draft Stacks	0	○	○	○	○	30	○	○	○	○	0	○	○	○	○	30	○	○	○	○
Observation Point S.W.	1	○	○	○	○	31	○	○	○	○	1	○	○	○	○	31	○	○	○	○
OF STACKS	2	○	○	○	○	32	○	○	○	○	2	○	○	○	○	32	○	○	○	○
Distance From 1200'	3	○	○	○	○	33	○	○	○	○	3	○	○	○	○	33	○	○	○	○
.	4	○	○	○	○	34	○	○	○	○	4	○	○	○	○	34	○	○	○	○
Source Height: 150'	5	○	○	○	○	35	○	○	○	○	5	○	○	○	○	35	○	○	○	○
Wind Direction: West	6	○	○	○	○	36	○	○	○	○	6	○	○	○	○	36	○	○	○	○
Wind Speed: 5 - 10	7	○	○	○	○	37	○	○	○	○	7	○	○	○	○	37	○	○	○	○
Background(s) Used SKY	8	○	○	○	○	38	○	○	○	○	8	○	○	○	○	38	○	○	○	○
.	9	○	○	○	○	39	○	○	○	○	9	○	○	○	○	39	○	○	○	○
.	10	○	○	○	○	40	○	○	○	○	10	○	○	○	○	40	○	○	○	○
Sky Conditions overcast	11	○	○	○	○	41	○	○	○	○	11	○	○	○	○	41	○	○	○	○
Ambient Temp.: 50°	12	○	○	○	○	42	○	○	○	○	12	○	○	○	○	42	○	○	○	○
Humidity: (50%) 50% >	13	○	○	○	○	43	○	○	○	○	13	○	○	○	○	43	○	○	○	○
Color of Emissions: BLACK	14	○	○	○	○	44	○	○	○	○	14	○	○	○	○	44	○	○	○	○
.	15	○	○	○	○	45	○	○	○	○	15	○	○	○	○	45	○	○	○	○
Reading Cond: Good	16	○	○	○	○	46	○	○	○	○	16	○	○	○	○	46	○	○	○	○
Observation	17	○	○	○	○	47	○	○	○	○	17	○	○	○	○	47	○	○	○	○
Began 1600 Ended 1800	18	○	○	○	○	48	○	○	○	○	18	○	○	○	○	48	○	○	○	○
Observer's Signature:	19	○	○	○	○	49	○	○	○	○	19	○	○	○	○	49	○	○	○	○
C. Broda	20	○	○	○	○	50	○	○	○	○	20	○	○	○	○	50	○	○	○	○
Date Last Certified	21	○	○	○	○	51	○	○	○	○	21	○	○	○	○	51	○	○	○	○
3-11-09	22	○	○	○	○	52	○	○	○	○	22	○	○	○	○	52	○	○	○	○
.	23	○	○	○	○	53	○	○	○	○	23	○	○	○	○	53	○	○	○	○
Average Opacity (%)	24	○	○	○	○	54	○	○	○	○	24	○	○	○	○	54	○	○	○	○
N	25	○	○	○	○	55	○	○	○	○	25	○	○	○	○	55	75	80	60	65
Emission Point	26	○	○	○	○	56	○	○	○	○	26	○	○	○	○	56	25	35	45	40
.	27	○	○	○	○	57	○	○	○	○	27	○	○	○	○	57	55	35	30	35
Sun Shadow Line	28	○	○	○	○	58	○	○	○	○	28	○	○	○	○	58	35	35	30	40
Observer's Position	29	○	○	○	○	59	○	○	○	○	29	○	○	○	○	59	30	35	25	25

Comments: NO SUN 1600 Bleeder stacks Co Min 6 Lin 6 NO SUN 1700

39.0

Visible Emissions Observations- Burns Harbor

Observer C. Broda

Date

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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BACK DRAFT STACKS	0	28°	20°	10°	10°	36					0					30				
Observation Point SW	1					31					1					31				
OF STACKS	2					32					2					32				
Distance From 1200'	3					33					3					33				
	4					34					4					34				
Source Height 150'	5					35					5					35				
Wind Direction West	6					36					6					36				
Wind Speed 5-10	7					37					7					37				
Background(s) Used SKY	8					38					8					38				
	9					39					9					39				
	10					40					10					40				
Sky Conditions overcast	11					41					11					41				
Ambient Temp 47°	12					42					12					42				
Humidity (50%) 60% >	13					43					13					43				
Color of Emissions BLACK	14					44					14					44				
	15					45					15					45				
Reading Cond Good	16					46					16					46				
Observation	17					47					17					47				
Began 1800 Ended 1801	18					48					18					48				
Observer's Signature:	19					49					19					49				
C. Broda	20					50					20					50				
Date Last Certified	21					51					21					51				
3-11-09	22					52					22					52				
	23					53					23					53				
Average Opacity (%)	24					54					24					54				
Emission Point	25					55					25					55				
	26					56					26					56				
	27					57					27					57				
Sun Shadow Line	28					58					28					58				
Observer's Position	29					59					29					59				

Comments: NO SUN 1800 BLEEDER STACKS COMING IN

Visible Emissions Observations- Burns Harbor

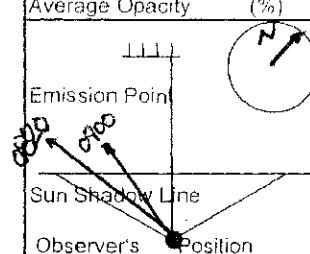
Observer: H. ROBINSON

Date: 4-22-09

Page 1 of 2

Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
<u>C-FURNACE</u>						30	BD	BD	BD	BD	0	O	O	O	O	30	O	O	O	O
<u>BLADERS & BACKDRAFT STACKS</u>	0					31	O	O	O	O	1	O	O	O	O	31	O	O	O	O
Observation Point:	1					32	BD	BD	BD	BD	2	O	O	O	O	32	O	O	O	O
<u>S.E. OF STACKS</u>	2					33	BD	BD	BD	BD	3	O	O	O	O	33	O	O	O	O
Distance From:	3					34	O	O	O	O	4	O	O	O	O	34	O	O	O	O
<u>900 FT.</u>	4					35	BD	BD	BD	BD	5	O	O	O	O	35	O	O	O	O
Source Height: <u>150 FT.</u>	5					36	25	25	25	25	6	O	O	O	O	36	O	O	O	O
Wind Direction: <u>WEST</u>	6					37	25	20	20	20	7	O	O	O	O	37	O	O	O	O
Wind Speed: <u>10-15 MPH</u>	7					38	20	20	15	15	8	O	O	O	O	38	O	O	O	O
Background(s) Used: <u>SKY</u>	8					39	15	15	15	15	9	O	O	O	O	39	O	O	O	O
	9					40	5	5	5	5	10	O	O	O	O	40	O	O	O	O
	10					41	O	O	O	O	11	O	O	O	O	41	O	O	O	O
Sky Conditions: <u>CLEAR</u>	11					42	O	O	O	O	12	O	O	O	O	42	O	O	O	O
Ambient Temp.: <u>41°</u>	12					43	O	O	O	O	13	O	O	O	O	43	O	O	O	O
Humidity: (50%) 50% <u>></u>	13					44	O	O	O	O	14	O	O	O	O	44	O	O	O	O
Color of Emissions: <u>GRAY</u>	14					45	O	O	O	O	15	O	O	O	O	45	O	O	O	O
	15					46	O	O	O	O	16	O	O	O	O	46	O	O	O	O
Reading Cond: <u>GOOD</u>	16					47	O	O	O	O	17	O	O	O	O	47	O	O	O	O
Observation	17	BD	BD	BD	BD	48	O	O	O	O	18	O	O	O	O	48	O	O	O	O
Began: <u>0817</u> Ended: <u>0959</u>	18	O	O	O	O	49	O	O	O	O	19	O	O	O	O	49	O	O	O	O
Observer's Signature:	19	BD	BD	BD	BD	50	O	O	O	O	20	O	O	O	O	50	O	O	O	O
<u>Harold Robinson</u>	20	O	O	O	O	51	O	O	O	O	21	O	O	O	O	51	O	O	O	O
Date Last Certified	21	BD	BD	BD	BD	52	O	O	O	O	22	O	O	O	O	52	O	O	O	O
	22	O	O	O	O	53	O	O	O	O	23	O	O	O	O	53	O	O	O	O
Average Opacity (%)	23	BD	BD	BD	BD	54	O	O	O	O	24	O	O	O	O	54	O	O	O	O
Emission Point	24	O	O	O	O	55	O	O	O	O	25	O	O	O	O	55	O	O	O	O
	25	BD	BD	BD	BD	56	O	O	O	O	26	O	O	O	O	56	O	O	O	O
	26	O	O	O	O	57	O	O	O	O	27	O	O	O	O	57	O	O	O	O
	27	BD	BD	BD	BD	58	O	O	O	O	28	O	O	O	O	58	O	O	O	O
	28	O	O	O	O	59	O	O	O	O	29	O	O	O	O	59	O	O	O	O
Sun Shadow Line	29	BD	BD	BD	BD															
Observer's Position																				

Comments:



Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date 7-22-09

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Source: C. BF Bleeder	(M) 0	15	30	45	(M) 0	15	30	45	(M) 0	15	30	45	(M) 0	15	30	45
BACK DRAFT stacks	0	0	0	0	30	0	0	0	0	0	0	0	30			
Observation Point: S.E.	1	0	0	0	31	0	0	0	0	0	0	0	31			
OF STACKS	2	0	0	0	32	0	0	0	0	0	0	0	32			
Distance From: 900'	3	0	0	0	33	0	0	0	0	0	0	0	33			
	4	0	0	0	34	0	0	0	0	0	0	0	34			
Source Height: 150'	5	0	0	0	35	0	0	0	0	0	0	0	35			
Wind Direction: West	6	0	0	0	36	0	0	0	0	0	0	0	36			
Wind Speed: 10-15	7	0	0	0	37	0	0	0	0	0	0	0	37			
Background(s) Used: SKY	8	0	0	0	38	0	0	0	0	0	0	0	38			
	9	0	0	0	39	0	0	0	0	0	0	0	39			
	10	0	0	0	40	0	0	0	0	0	0	0	40			
Sky Conditions: Clear	11	0	0	0	41	0	0	0	0	0	0	0	41			
Ambient Temp: 54°	12	0	0	0	42	0	0	0	0	0	0	0	42			
Humidity: (50%) 50% >	13	0	0	0	43	0	0	0	0	0	0	0	43			
Color of Emissions: BLACK	14	0	0	0	44	0	0	0	0	0	0	0	44			
	15	0	0	0	45	0	0	0	0	0	0	0	45			
Grey	16	0	0	0	46	0	0	0	0	0	0	0	46			
Reading Cond.: Good	17	0	0	0	47	0	0	0	0	0	0	0	47			
Observation	18	0	0	0	48	0	0	0	0	0	0	0	48			
Began 1600 Ended: 1518	19	0	0	0	49	0	0	0	0	0	0	0	49			
Observer's Signature:	20	0	0	0	50	0	0	0	0	0	0	0	50			
Date Last Certified	21	0	0	0	51	0	0	0	0	0	0	0	51			
3-11-09	22	0	0	0	52	0	0	0	0	0	0	0	52			
	23	0	0	0	53	0	0	0	0	0	0	0	53			
Average Opacity (%)	24	0	0	0	54	0	0	0	0	0	0	0	54			
Emission Point	25	0	0	0	55	0	0	0	0	0	0	0	55			
	26	0	0	0	56	0	0	0	0	0	0	0	56			
Sun Shadow Line	27	0	0	0	57	0	0	0	0	0	0	0	57			
Observer's Position	28	0	0	0	58	0	0	0	0	0	0	0	58			
	29	0	0	0	59	0	0	0	0	0	0	0	59			

Comments: Bleeders stacks Co mingling BACK DRAFT STACK - BD

Visible Emissions Observations- Burns Harbor

Observer: C.Broda

Date: 4-21-09

Page 1 of 5

Source: C-BF-Bleeder	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Back DRAFT stacks	0					30					0	B	B	B	B	30	B D	B D	B D	B D
Observation Point: SE.	1					31					1	O	O	O	O	31	25	15	25	15
OF stacks	2					32					2	O	O	O	O	32	15	10	10	10
Distance From: 900'	3					33					3	O	O	O	O	33	10	10	15	10
	4					34					4	O	O	O	O	34	10	10	10	10
Source Height: 150'	5					35					5	O	O	O	O	35	10	10	10	10
Wind Direction: WEST	6					36					6	O	O	O	O	36	10	10	10	10
Wind Speed: 10 - 15	7					37					7	O	O	O	O	37	10	10	10	10
Background(s) Used: SKY	8					38					8	O	O	O	O	38	10	10	10	10
	9					39					9	O	O	O	O	39	10	10	10	10
	10					40	B D	B D	B D	B D	10	O	O	O	O	40	B	B	B	B
Sky Conditions: OVERCAST	11					41	O	O	O	O	11	O	O	O	O	41	O	O	O	O
Ambient Temp.: 42°	12					42	O	O	O	O	12	O	O	O	O	42	O	O	O	O
Humidity: (50%) 50%	13					43	O	O	O	O	13	O	O	O	O	43	O	O	O	O
Color of Emissions: Grey	14					44	O	O	O	O	14	O	O	O	O	44	O	O	O	O
Brown	15					45	O	O	O	O	15	O	15	15	20	45	O	O	O	O
Reading Cond.: Good	16					46	O	O	O	O	16	25	25	15	25	46	O	O	O	O
Observation	17					47	O	O	O	O	17	25	30	25	25	47	O	O	O	O
Began: 1140 Ended: 1300	18					48	O	O	O	O	18	20	15	25	25	48	O	O	O	O
Observer's Signature:	19					49	O	10	10	10	19	25	25	30	30	49	O	O	O	O
C. Broda	20					50	O	10	10	10	20	25	35	25	25	50	O	O	O	O
Date Last Certified	21					51	10	10	10	10	21	25	20	25	15	51	O	O	O	O
3-11-09	22					52	10	10	10	10	22	20	25	20	25	52	O	O	O	O
	23					53	10	10	10	10	23	20	15	25	25	53	O	O	O	O
Average Opacity (%)	24					54	10	10	10	10	24	25	20	20	15	54	O	O	O	O
Emission Point	25					55	10	10	10	10	25	25	20	25	15	55	O	O	O	O
	26					56	10	10	10	10	26	15	20	15	15	56	O	O	O	O
	27					57	10	10	0	0	27	15	15	10	15	57	O	O	O	O
Sun Shadow Line	28					58	O	O	O	O	28	15	15	20	25	58	O	O	O	O
Observer's Position	29					59	O	O	O	O	29	20	15	25	20	59	O	O	O	O

Comments: NO SUN 1140 BACK DRAFT STACK - BD - Bleeders AT 1149
Bleeder stacks comingling

Visible Emissions Observations- Burns Harbor

Observer: C. Broda /

Date: 4-21-09

Page 2 of 5

Source: C-BF-Bleeder	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Back Draft Stacks	0	B	B	B	B	30	B	B	B	B	0					30				
Observation Point: SE.	1	B	B	B	B	31	B	B	B	B	1					31				
OF STACKS	2	B	B	B	B	32	B	B	B	B	2					32				
Distance From: 900'	3	B	B	B	B	33	B	B	B	B	3					33				
	4	B	B	B	B	34	B	B	B	B	4					34				
Source Height: 150'	5	B	S	B	B	35	B	B	B	B	5					35				
Wind Direction: West	6	B	B	B	B	36	B	B	B	B	6					36				
Wind Speed: 10-15	7	B	B	B	B	37	B	B	B	B	7					37				
Background(s) Used: SKY	8	B	B	B	B	38	B	B	B	B	8					38				
	9	B	B	B	B	39	B	S	B	B	9					39				
	10	B	B	B	B	40	B	B	B	B	10					40				
Sky Conditions: Overcast	11	B	B	B	B	41	B	B	B	B	11					41				
Ambient Temp.: 42	12	B	B	B	B	42	B	B	B	B	12					42				
Humidity: (50%) 50%	13	B	B	B	B	43	B	B	B	B	13					43				
Color of Emissions:	14	B	B	B	B	44	B	B	B	B	14					44				
	15	B	B	B	B	45	B	B	B	B	15					45				
Reading Cond.: Good	16	B	B	B	B	46	B	B	B	B	16					46				
Observation	17	B	B	B	B	47	B	B	B	B	17					47				
Began: 1300 Ended: 1359	18	B	B	B	B	48	B	B	B	B	18					48				
Observer's Signature:	19	B	B	B	B	49	B	B	B	B	19					49				
C. Broda /	20	B	B	B	B	50	B	B	B	B	20					50				
Date Last Certified	21	B	B	B	B	51	B	B	B	B	21					51				
3-11-09	22	B	B	B	B	52	B	B	B	B	22					52				
	23	B	B	B	B	53	B	B	B	B	23					53				
Average Opacity (%)	24	B	B	B	B	54	B	B	B	B	24					54				
Emission Point	25	B	B	B	B	55	B	B	B	B	25					55				
	26	B	B	B	B	56	B	B	B	B	26					56				
	27	B	B	B	B	57	B	B	B	B	27					57				
Sun Shadow Line	28	B	B	B	B	58	B	B	B	B	28					58				
Observer's Position	29	B	B	B	B	59	B	B	B	B	29					59				

Comments: NO SUN 1300 Bleeder STACKS Co. Min 6 Link

Visible Emissions Observations- Burns Harbor

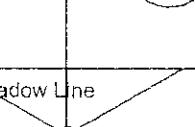
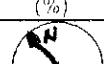
Observer: H. ROBINSON

Date: 4. 21. 09

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Source	C-FURNACE	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BLEEDERS & BACKDRAFT STACKS		0	0 ^b	0 ^b	0 ^b	0 ^b	30	0 ^b	0 ^b	0 ^b	0 ^b	0	0 ^b	0 ^b	0 ^b	0 ^b	30	0 ^b	0 ^b	0 ^b	0 ^b
Observation Point:		1	0 ^b	0 ^b	0 ^b	0 ^b	31	0 ^b	0 ^b	0 ^b	0 ^b	1	0 ^b	0 ^b	0 ^b	0 ^b	31	0 ^b	0 ^b	0 ^b	0 ^b
SW of STACKS		2	0 ^b	0 ^b	0 ^b	0 ^b	32	0 ^b	0 ^b	0 ^b	0 ^b	2	0 ^b	0 ^b	0 ^b	0 ^b	32	0 ^b	0 ^b	0 ^b	0 ^b
Distance From:		3	0 ^b	0 ^b	0 ^b	0 ^b	33	0 ^b	0 ^b	0 ^b	0 ^b	3	0 ^b	0 ^b	0 ^b	0 ^b	33	0 ^b	0 ^b	0 ^b	0 ^b
900 FT.		4	0 ^b	0 ^b	0 ^b	0 ^b	34	0 ^b	0 ^b	0 ^b	0 ^b	4	0 ^b	0 ^b	0 ^b	0 ^b	34	0 ^b	0 ^b	0 ^b	0 ^b
Source Height: 150 FT.		5	0 ^b	0 ^b	0 ^b	0 ^b	35	0 ^b	0 ^b	0 ^b	0 ^b	5	0 ^b	0 ^b	0 ^b	0 ^b	35	0 ^b	0 ^b	0 ^b	0 ^b
Wind Direction: WEST		6	0 ^b	0 ^b	0 ^b	0 ^b	36	0 ^b	0 ^b	0 ^b	0 ^b	6	0 ^b	0 ^b	0 ^b	0 ^b	36	0 ^b	0 ^b	0 ^b	0 ^b
Wind Speed: 10 - 15 MPH		7	0 ^b	0 ^b	0 ^b	0 ^b	37	0 ^b	0 ^b	0 ^b	0 ^b	7	0 ^b	0 ^b	0 ^b	0 ^b	37	0 ^b	0 ^b	0 ^b	0 ^b
Background(s) Used: SKY		8	0 ^b	0 ^b	0 ^b	0 ^b	38	0 ^b	0 ^b	0 ^b	0 ^b	8	0 ^b	0 ^b	0 ^b	0 ^b	38	0 ^b	0 ^b	0 ^b	0 ^b
		9	0 ^b	0 ^b	0 ^b	0 ^b	39	0 ^b	0 ^b	0 ^b	0 ^b	9	0 ^b	0 ^b	0 ^b	0 ^b	39	0 ^b	0 ^b	0 ^b	0 ^b
		10	0 ^b	0 ^b	0 ^b	0 ^b	40	0 ^b	0 ^b	0 ^b	0 ^b	10	0 ^b	0 ^b	0 ^b	0 ^b	40	0 ^b	0 ^b	0 ^b	0 ^b
Sky Conditions: OVERCAST		11	0 ^b	0 ^b	0 ^b	0 ^b	41	0 ^b	0 ^b	0 ^b	0 ^b	11	0 ^b	0 ^b	0 ^b	0 ^b	41	0 ^b	0 ^b	0 ^b	0 ^b
Ambient Temp.: 44°		12	0 ^b	0 ^b	0 ^b	0 ^b	42	0 ^b	0 ^b	0 ^b	0 ^b	12	0 ^b	0 ^b	0 ^b	0 ^b	42	0 ^b	0 ^b	0 ^b	0 ^b
Humidity: (50%) 50% >		13	0 ^b	0 ^b	0 ^b	0 ^b	43	0 ^b	0 ^b	0 ^b	0 ^b	13	0 ^b	0 ^b	0 ^b	0 ^b	43	0 ^b	0 ^b	0 ^b	0 ^b
Color of Emissions:		14	0 ^b	0 ^b	0 ^b	0 ^b	44	0 ^b	0 ^b	0 ^b	0 ^b	14	0 ^b	0 ^b	0 ^b	0 ^b	44	0 ^b	0 ^b	0 ^b	0 ^b
		15	0 ^b	0 ^b	0 ^b	0 ^b	45	0 ^b	0 ^b	0 ^b	0 ^b	15	0 ^b	0 ^b	0 ^b	0 ^b	45	0 ^b	0 ^b	0 ^b	0 ^b
Reading Cond.: GOOD		16	0 ^b	0 ^b	0 ^b	0 ^b	46	0 ^b	0 ^b	0 ^b	0 ^b	16	0 ^b	0 ^b	0 ^b	0 ^b	46	0 ^b	0 ^b	0 ^b	0 ^b
Observation		17	0 ^b	0 ^b	0 ^b	0 ^b	47	0 ^b	0 ^b	0 ^b	0 ^b	17	0 ^b	0 ^b	0 ^b	0 ^b	47	0 ^b	0 ^b	0 ^b	0 ^b
Began: 1400		18	0 ^b	0 ^b	0 ^b	0 ^b	48	0 ^b	0 ^b	0 ^b	0 ^b	18	0 ^b	0 ^b	0 ^b	0 ^b	48	0 ^b	0 ^b	0 ^b	0 ^b
Ended: 1559																					
Observer's Signature: -		19	0 ^b	0 ^b	0 ^b	0 ^b	49	0 ^b	0 ^b	0 ^b	0 ^b	19	0 ^b	0 ^b	0 ^b	0 ^b	49	0 ^b	0 ^b	0 ^b	0 ^b
		20	0 ^b	0 ^b	0 ^b	0 ^b	50	0 ^b	0 ^b	0 ^b	0 ^b	20	0 ^b	0 ^b	0 ^b	0 ^b	50	0 ^b	0 ^b	0 ^b	0 ^b
Date Last Certified		21	0 ^b	0 ^b	0 ^b	0 ^b	51	0 ^b	0 ^b	0 ^b	0 ^b	21	0 ^b	0 ^b	0 ^b	0 ^b	51	0 ^b	0 ^b	0 ^b	0 ^b
		22	0 ^b	0 ^b	0 ^b	0 ^b	52	0 ^b	0 ^b	0 ^b	0 ^b	22	0 ^b	0 ^b	0 ^b	0 ^b	52	0 ^b	0 ^b	0 ^b	0 ^b
		23	0 ^b	0 ^b	0 ^b	0 ^b	53	0 ^b	0 ^b	0 ^b	0 ^b	23	0 ^b	0 ^b	0 ^b	0 ^b	53	0 ^b	0 ^b	0 ^b	0 ^b
Average Opacity (%)		24	0 ^b	0 ^b	0 ^b	0 ^b	54	0 ^b	0 ^b	0 ^b	0 ^b	24	0 ^b	0 ^b	0 ^b	0 ^b	54	0 ^b	0 ^b	0 ^b	0 ^b
Emission Point		25	0 ^b	0 ^b	0 ^b	0 ^b	55	0 ^b	0 ^b	0 ^b	0 ^b	25	0 ^b	0 ^b	0 ^b	0 ^b	55	0 ^b	0 ^b	0 ^b	0 ^b
		26	0 ^b	0 ^b	0 ^b	0 ^b	56	0 ^b	0 ^b	0 ^b	0 ^b	26	0 ^b	0 ^b	0 ^b	0 ^b	56	0 ^b	0 ^b	0 ^b	0 ^b
Sun Shadow Line		27	0 ^b	0 ^b	0 ^b	0 ^b	57	0 ^b	0 ^b	0 ^b	0 ^b	27	0 ^b	0 ^b	0 ^b	0 ^b	57	0 ^b	0 ^b	0 ^b	0 ^b
Observer's Position		28	0 ^b	0 ^b	0 ^b	0 ^b	58	0 ^b	0 ^b	0 ^b	0 ^b	28	0 ^b	0 ^b	0 ^b	0 ^b	58	0 ^b	0 ^b	0 ^b	0 ^b
		29	0 ^b	0 ^b	0 ^b	0 ^b	59	0 ^b	0 ^b	0 ^b	0 ^b	29	0 ^b	0 ^b	0 ^b	0 ^b	59	0 ^b	0 ^b	0 ^b	0 ^b

Comments: NO SUN VISIBLE 1400
" " " 1500



Visible Emissions Observations- Burns Harbor

Observer: H. ROBINSON

Date 4-21-09

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Source: C-FURNACE	(M) 0	15	30	45	(M) 0	15	30	45	(M) 0	15	30	45	(M) 0	15	30	45
BLEEDERS & BACKDRAFT STACKS	0	O ^B	O ^B	O ^B	30	O ^B	O ^B	O ^B	0	O ^B	O ^B	O ^B	30	O ^B	O ^B	O ^B
Observation Point:	1	O ^B	O ^B	O ^B	31	O ^B	O ^B	O ^B	1	O ^B	O ^B	O ^B	31	O ^B	O ^B	O ^B
WSW of STACKS	2	O ^B	O ^B	O ^B	32	O ^B	O ^B	O ^B	2	O ^B	O ^B	O ^B	32	O ^B	O ^B	O ^B
Distance From 1500 FT.	3	O ^B	O ^B	O ^B	33	O ^B	O ^B	O ^B	3	O ^B	O ^B	O ^B	33	O ^B	O ^B	O ^B
	4	O ^B	O ^B	O ^B	34	O ^B	O ^B	O ^B	4	O ^B	O ^B	O ^B	34	O ^B	O ^B	O ^B
Source Height: 150 FT.	5	O ^B	O ^B	O ^B	35	O ^B	O ^B	O ^B	5	O ^B	O ^B	O ^B	35	O ^B	O ^B	O ^B
Wind Direction: WEST	6	O ^B	O ^B	O ^B	36	O ^B	O ^B	O ^B	6	O ^B	O ^B	O ^B	36	O ^B	O ^B	O ^B
Wind Speed: 10-15 MPH	7	O ^B	O ^B	O ^B	37	O ^B	O ^B	O ^B	7	O ^B	O ^B	O ^B	37	O ^B	O ^B	O ^B
Background(s) Used: SKY	8	O ^B	O ^B	O ^B	38	O ^B	O ^B	O ^B	8	O ^B	O ^B	O ^B	38	O ^B	O ^B	O ^B
	9	O ^B	O ^B	O ^B	39	O ^B	O ^B	O ^B	9	O ^B	O ^B	O ^B	39	O ^B	O ^B	O ^B
	10	O ^B	O ^B	O ^B	40	O ^B	O ^B	O ^B	10	O ^B	O ^B	O ^B	40	O ^B	O ^B	O ^B
Sky Conditions: Cloudy	11	O ^B	O ^B	O ^B	41	O ^B	O ^B	O ^B	11	O ^B	O ^B	O ^B	41	O ^B	O ^B	O ^B
Ambient Temp.: 45°	12	O ^B	O ^B	O ^B	42	O ^B	O ^B	O ^B	12	O ^B	O ^B	O ^B	42	O ^B	O ^B	O ^B
Humidity: (50%) 50% >	13	O ^B	O ^B	O ^B	43	O ^B	O ^B	O ^B	13	O ^B	O ^B	O ^B	43	O ^B	O ^B	O ^B
Color of Emissions:	14	O ^B	O ^B	O ^B	44	O ^B	O ^B	O ^B	14	O ^B	O ^B	O ^B	44	O ^B	O ^B	O ^B
	15	O ^B	O ^B	O ^B	45	O ^B	O ^B	O ^B	15	O ^B	O ^B	O ^B	45	O ^B	O ^B	O ^B
Reading Cond.: GOOD	16	O ^B	O ^B	O ^B	46	O ^B	O ^B	O ^B	16	O ^B	O ^B	O ^B	46	O ^B	O ^B	O ^B
Observation	17	O ^B	O ^B	O ^B	47	O ^B	O ^B	O ^B	17	O ^B	O ^B	O ^B	47	O ^B	O ^B	O ^B
Began 1600 Ended: 1759	18	O ^B	O ^B	O ^B	48	O ^B	O ^B	O ^B	18	O ^B	O ^B	O ^B	48	O ^B	O ^B	O ^B
Observer's Signature:	19	O ^B	O ^B	O ^B	49	O ^B	O ^B	O ^B	19	O ^B	O ^B	O ^B	49	O ^B	O ^B	O ^B
Hawley Robinson	20	O ^B	O ^B	O ^B	50	O ^B	O ^B	O ^B	20	O ^B	O ^B	O ^B	50	O ^B	O ^B	O ^B
Date Last Certified	21	O ^B	O ^B	O ^B	51	O ^B	O ^B	O ^B	21	O ^B	O ^B	O ^B	51	O ^B	O ^B	O ^B
3-11-09	22	O ^B	O ^B	O ^B	52	O ^B	O ^B	O ^B	22	O ^B	O ^B	O ^B	52	O ^B	O ^B	O ^B
	23	O ^B	O ^B	O ^B	53	O ^B	O ^B	O ^B	23	O ^B	O ^B	O ^B	53	O ^B	O ^B	O ^B
Average Opacity (%)	24	O ^B	O ^B	O ^B	54	O ^B	O ^B	O ^B	24	O ^B	O ^B	O ^B	54	O ^B	O ^B	O ^B
Emission Point	25	O ^B	O ^B	O ^B	55	O ^B	O ^B	O ^B	25	O ^B	O ^B	O ^B	55	O ^B	O ^B	O ^B
	26	O ^B	O ^B	O ^B	56	O ^B	O ^B	O ^B	26	O ^B	O ^B	O ^B	56	O ^B	O ^B	O ^B
	27	O ^B	O ^B	O ^B	57	O ^B	O ^B	O ^B	27	O ^B	O ^B	O ^B	57	O ^B	O ^B	O ^B
Sun Shadow Line	28	O ^B	O ^B	O ^B	58	O ^B	O ^B	O ^B	28	O ^B	O ^B	O ^B	58	O ^B	O ^B	O ^B
Observer's Position	29	O ^B	O ^B	O ^B	59	O ^B	O ^B	O ^B	29	O ^B	O ^B	O ^B	59	O ^B	O ^B	O ^B

Comments: NO SUN VISIBLE 1600
11 11 11 1700

Visible Emissions Observations- Burns Harbor

Observer H. ROBINSON

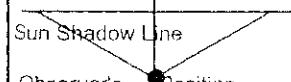
Date 4-21-09

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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BLEEDER & BACKDRAFT STACKS	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Observation Point:	1	0	0	0	0	31	0	0	0	0	1	0	0	0	0	31	0	0	0	0
WSW of stacks	2	0	0	0	0	32	0	0	0	0	2	0	0	0	0	32	0	0	0	0
Distance From:	3	0	0	0	0	33	0	0	0	0	3	0	0	0	0	33	0	0	0	0
1500 ft	4	0	0	0	0	34	0	0	0	0	4	0	0	0	0	34	0	0	0	0
Source Height: 150 ft	5	0	0	0	0	35	0	0	0	0	5	0	0	0	0	35	0	0	0	0
Wind Direction: WEST	6	0	0	0	0	36	0	0	0	0	6	0	0	0	0	36	0	0	0	0
Wind Speed: 10-15 mph	7	0	0	0	0	37	0	0	0	0	7	0	0	0	0	37				
Background(s) Used: SKY	8	0	0	0	0	38	0	0	0	0	8	0	0	0	0	38				
	9	0	0	0	0	39	0	0	0	0	9	0	0	0	0	39				
	10	0	0	0	0	40	0	0	0	0	10	0	0	0	0	40				
Sky Conditions: Cloudy OVERCAST	11	0	0	0	0	41	0	0	0	0	11	0	0	0	0	41				
Ambient Temp: 45°	12	0	0	0	0	42	0	0	0	0	12	0	0	0	0	42				
Humidity: (50%) 50% >	13	0	0	0	0	43	0	0	0	0	13	0	0	0	0	43				
Color of Emissions:	14	0	0	0	0	44	0	0	0	0	14	0	0	0	0	44				
	15	0	0	0	0	45	0	0	0	0	15	0	0	0	0	45				
Reading Cond.: Good	16	0	0	0	0	46	0	0	0	0	16	0	0	0	0	46				
Observation	17	0	0	0	0	47	0	0	0	0	17	0	0	0	0	47				
Began: 1800 Ended: 1936	18	0	0	0	0	48	0	0	0	0	18	0	0	0	0	48				
Observer's Signature:	19	0	0	0	0	49	0	0	0	0	19	0	0	0	0	49				
<i>H. Robinson</i>	20	0	0	0	0	50	0	0	0	0	20	0	0	0	0	50				
Date Last Certified	21	0	0	0	0	51	0	0	0	0	21	0	0	0	0	51				
3-11-09	22	0	0	0	0	52	0	0	0	0	22	0	0	0	0	52				
	23	0	0	0	0	53	0	0	0	0	23	0	0	0	0	53				
Average Opacity (%)	24	0	0	0	0	54	0	0	0	0	24	0	0	0	0	54				
Emission Point	25	0	0	0	0	55	0	0	0	0	25	0	0	0	0	55				
	26	0	0	0	0	56	0	0	0	0	26	0	0	0	0	56				
	27	0	0	0	0	57	0	0	0	0	27	0	0	0	0	57				
Sun Shadow Line	28	0	0	0	0	58	0	0	0	0	28	0	0	0	0	58				
Observer's Position	29	0	0	0	0	59	0	0	0	0	29	0	0	0	0	59				

Comments: NO SUN VISIBLE 1800
" " " 1900





Visible Emissions Observations- Burns Harbor

Observer: H. Robinson

Date: 4.20.09

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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
PILDEERS & BAKKERT STACKS	0					30	0 ^B	0 ^B	0 ^B	0 ^B	0	0 ^B	0 ^B	0 ^B	0 ^B	30	0 ^B	0 ^B	0 ^B	0 ^B
Observation Point:	1	0 ^B	0 ^B	0 ^B	0 ^B	31	0 ^B	0 ^B	0 ^B	0 ^B	1	0 ^B	0 ^B	0 ^B	0 ^B	31	0 ^B	0 ^B	0 ^B	0 ^B
S.E of STACKS	2	35	35	30	30	32	0 ^B	0 ^B	0 ^B	0 ^B	2	0 ^B	0 ^B	0 ^B	0 ^B	32	0 ^B	0 ^B	0 ^B	0 ^B
Distance From:	3	25	25	25	20	33	0 ^B	0 ^B	0 ^B	0 ^B	3	0 ^B	0 ^B	0 ^B	0 ^B	33	0 ^B	0 ^B	0 ^B	0 ^B
900 ft	4	20	20	10	0 ^B	34	0 ^B	0 ^B	0 ^B	0 ^B	4	0 ^B	0 ^B	0 ^B	0 ^B	34	0 ^B	0 ^B	0 ^B	0 ^B
Source Height:	5	0 ^B	0 ^B	0 ^B	0 ^B	35	0 ^B	0 ^B	0 ^B	0 ^B	5	0 ^B	0 ^B	0 ^B	0 ^B	35	0 ^B	0 ^B	0 ^B	0 ^B
Wind Direction:	NW	0 ^B	0 ^B	0 ^B	0 ^B	36	0 ^B	0 ^B	0 ^B	0 ^B	6	0 ^B	0 ^B	0 ^B	0 ^B	36	0 ^B	0 ^B	0 ^B	0 ^B
Wind Speed:	5 - 10	0 ^B	0 ^B	0 ^B	0 ^B	37	0 ^B	0 ^B	0 ^B	0 ^B	7	0 ^B	0 ^B	0 ^B	0 ^B	37	0 ^B	0 ^B	0 ^B	0 ^B
Background(s) Used:	SKY	0 ^B	0 ^B	0 ^B	0 ^B	38	0 ^B	0 ^B	0 ^B	0 ^B	8	0 ^B	0 ^B	0 ^B	0 ^B	38	0 ^B	0 ^B	0 ^B	0 ^B
	9	0 ^B	0 ^B	0 ^B	0 ^B	39	0 ^B	0 ^B	0 ^B	0 ^B	9	0 ^B	0 ^B	0 ^B	0 ^B	39	0 ^B	0 ^B	0 ^B	0 ^B
	10	0 ^B	0 ^B	0 ^B	0 ^B	40	0 ^B	0 ^B	0 ^B	0 ^B	10	0 ^B	0 ^B	0 ^B	0 ^B	40	0 ^B	0 ^B	0 ^B	0 ^B
Sky Conditions:	Partly Cloudy	0 ^B	0 ^B	0 ^B	0 ^B	41	0 ^B	0 ^B	0 ^B	0 ^B	11	0 ^B	0 ^B	0 ^B	0 ^B	41	0 ^B	0 ^B	0 ^B	0 ^B
Ambient Temp.:	47°	0 ^B	0 ^B	0 ^B	0 ^B	42	0 ^B	0 ^B	0 ^B	0 ^B	12	0 ^B	0 ^B	0 ^B	0 ^B	42	0 ^B	0 ^B	0 ^B	0 ^B
Humidity. (50%) 50% >	13	0 ^B	0 ^B	0 ^B	0 ^B	43	0 ^B	0 ^B	0 ^B	0 ^B	13	0 ^B	0 ^B	0 ^B	0 ^B	43	0 ^B	0 ^B	0 ^B	0 ^B
Color of Emissions:	GRAY	0 ^B	0 ^B	0 ^B	0 ^B	44	0 ^B	0 ^B	0 ^B	0 ^B	14	0 ^B	0 ^B	0 ^B	0 ^B	44	0 ^B	0 ^B	0 ^B	0 ^B
	15	0 ^B	0 ^B	0 ^B	0 ^B	45	0 ^B	0 ^B	0 ^B	0 ^B	15	0 ^B	0 ^B	0 ^B	0 ^B	45	0 ^B	0 ^B	0 ^B	0 ^B
Reading Cond.:	GOOD	0 ^B	0 ^B	0 ^B	0 ^B	46	0 ^B	0 ^B	0 ^B	0 ^B	16	0 ^B	0 ^B	0 ^B	0 ^B	46	0 ^B	0 ^B	0 ^B	0 ^B
Observation	17	0 ^B	0 ^B	0 ^B	0 ^B	47	0 ^B	0 ^B	0 ^B	0 ^B	17	0 ^B	0 ^B	0 ^B	0 ^B	47	0 ^B	0 ^B	0 ^B	0 ^B
Began: 1302	Ended: 1459	0 ^B	0 ^B	0 ^B	0 ^B	48	0 ^B	0 ^B	0 ^B	0 ^B	18	0 ^B	0 ^B	0 ^B	0 ^B	48	0 ^B	0 ^B	0 ^B	0 ^B
Observer's Signature:	<u>H. Robinson</u>																			
Date Last Certified	3-11-09																			
Average Opacity (%)	24	0 ^B	0 ^B	0 ^B	0 ^B	54	0 ^B	0 ^B	0 ^B	0 ^B	24	0 ^B	0 ^B	0 ^B	0 ^B	54	0 ^B	0 ^B	0 ^B	0 ^B
Emission Point	1111	0 ^B	0 ^B	0 ^B	0 ^B	55	0 ^B	0 ^B	0 ^B	0 ^B	25	0 ^B	0 ^B	0 ^B	0 ^B	55	0 ^B	0 ^B	0 ^B	0 ^B
	1308	0 ^B	0 ^B	0 ^B	0 ^B	56	0 ^B	0 ^B	0 ^B	0 ^B	26	0 ^B	0 ^B	0 ^B	0 ^B	56	0 ^B	0 ^B	0 ^B	0 ^B
	1400	0 ^B	0 ^B	0 ^B	0 ^B	57	0 ^B	0 ^B	0 ^B	0 ^B	27	0 ^B	0 ^B	0 ^B	0 ^B	57	0 ^B	0 ^B	0 ^B	0 ^B
Sun Shadow Line	28	0 ^B	0 ^B	0 ^B	0 ^B	58	0 ^B	0 ^B	0 ^B	0 ^B	28	0 ^B	0 ^B	0 ^B	0 ^B	58	0 ^B	0 ^B	0 ^B	0 ^B
Observer's Position	29	0 ^B	0 ^B	0 ^B	0 ^B	59	0 ^B	0 ^B	0 ^B	0 ^B	29	0 ^B	0 ^B	0 ^B	0 ^B	59	0 ^B	0 ^B	0 ^B	0 ^B

Comments:

Visible Emissions Observations- Burns Harbor

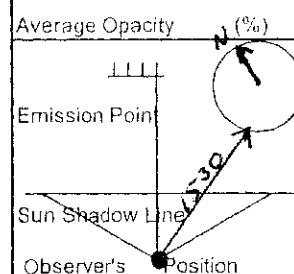
Observer: C. Broda

Date 4-20-09

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Source: C-BF Bleeders	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Back Draft Stacks	0	0	0	0	0	30	B	D	B	D	0	0	0	0	0	0	0	0	0	
Observation Point: SW	1	0	0	0	0	31	0	0	0	0	1	0	0	0	0	0	0	0	0	
OF STACKS	2	0	0	0	0	32	0	0	0	0	2	0	0	0	0	0	0	0	0	
Distance From: 900'	3	0	0	0	0	33	0	0	0	0	3	0	0	0	0	0	0	0	0	
	4	0	0	0	0	34	0	0	0	0	4	0	0	0	0	0	0	0	0	
Source Height: 150'	5	0	0	0	0	35	0	0	0	0	5	0	0	0	0	0	0	0	0	
Wind Direction: NW	6	0	0	0	0	36	0	0	0	0	6	0	0	0	0	0	0	0	0	
Wind Speed: 5-10	7	0	0	0	0	37	0	0	0	0	7	0	0	0	0	0	0	0	0	
Background(s) Used: SKY	8	0	0	0	0	38	0	0	0	0	8	0	0	0	0	0	0	0	0	
	9	0	0	0	0	39	0	0	0	0	9	0	0	0	0	0	0	0	0	
	10	0	0	0	0	40	0	0	0	0	10	0	0	0	0	0	0	0	0	
Sky Conditions: Partly Cloudy	11	0	0	0	0	41	0	0	0	0	11	0	0	0	0	0	0	0	0	
Ambient Temp.: 47°	12	0	0	0	0	42	0	0	0	0	12	0	0	0	0	0	0	0	0	
Humidity: (50%) 50% >	13	0	0	0	0	43	0	0	0	0	13	0	0	0	0	0	0	0	0	
Color of Emissions:	14	0	0	0	0	44	0	0	0	0	14	0	0	0	0	0	0	0	0	
	15	0	0	0	0	45	0	0	0	0	15	0	0	0	0	0	0	0	0	
Reading Cond.: Good	16	0	0	0	0	46	0	0	0	0	16	0	0	0	0	0	0	0	0	
Observation	17	0	0	0	0	47	0	0	0	0	17	0	0	0	0	0	0	0	0	
Began 1500 Ended 1557	18	0	0	0	0	48	0	0	0	0	18	0	0	0	0	0	0	0	0	
Observer's Signature:	19	0	0	0	0	49	0	0	0	0	19	0	0	0	0	0	0	0	0	
<i>C. Broda</i>	20	0	0	0	0	50	0	0	0	0	20	0	0	0	0	0	0	0	0	
Date Last Certified	21	0	0	0	0	51	0	0	0	0	21	0	0	0	0	0	0	0	0	
3-11-09	22	0	0	0	0	52	0	0	0	0	22	0	0	0	0	0	0	0	0	
	23	0	0	0	0	53	0	0	0	0	23	0	0	0	0	0	0	0	0	
Average Opacity (%)	24	0	0	0	0	54	0	0	0	0	24	0	0	0	0	0	0	0	0	
Emission Point	25	0	0	0	0	55	0	0	0	0	25	0	0	0	0	0	0	0	0	
Sun Shadow Line	26	0	0	0	0	56	0	0	0	0	26	0	0	0	0	0	0	0	0	
Observer's Position	27	0	0	0	0	57	0	0	0	0	27	0	0	0	0	0	0	0	0	
	28	0	0	0	0	58	0	0	0	0	28	0	0	0	0	0	0	0	0	
	29	0	0	0	0	59	0	0	0	0	29	0	0	0	0	0	0	0	0	

Comments: No Sun 1500 - Back Draft Stack - BD



Visible Emissions Observations- Burns Harbor

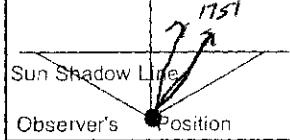
Observer: Warren Howard

Date: 4/17/09

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Source: <u>BFC</u>	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
<u>Bladder Stacks</u>	0					30					0	50	50	60	60	30	0	0	0	0
Observation Point:	1					31					1	60	60	50	55	31	0	0	0	0
<u>West of BFC</u>	2					32					2	60	60	60	55	32	0	0	0	0
Distance From: <u>150'</u>	3					33					3	60	60	60	55	33	0	0	0	0
	4					34					4	50	45	40	40	34	0	0	0	0
Source Height: <u>150'</u>	5					35					5	40	40	40	35	35	0	0	0	0
Wind Direction: <u>N</u>	6					36					6	35	40	40	40	36	0	0	0	0
Wind Speed: <u>5-10</u>	7					37					7	35	35	35	36	37	0	0	0	0
Background(s) Used	8					38					8	30	30	30	25	38	0	0	0	0
<u>Sky</u>	9					39					9	25	25	25	20	39	0	0	0	0
	10					40					10	15	15	15	15	40	0	0	0	0
Sky Conditions: <u>Clear</u>	11					41					11	15	15	15	15	41	0	0	0	0
Ambient Temp.: <u>60</u>	12					42					12	15	15	15	15	42	0	0	0	0
Humidity: (50%) <u>50%</u>	13					43					13	10	15	15	15	43	0	0	0	0
Color of Emissions: <u>Gray</u>	14					44					14	15	15	10	10	44	0	0	0	0
	15					45					15	10	10	10	5	45	0	0	0	0
Reading Cond. <u>Good</u>	16					46					16	5	5	5	0	46	0	0	0	0
Observation	17					47					17	0	0	0	0	47	0	0	0	0
Began: <u>1751</u> Ended: <u>1859</u>	18					48					18	0	0	0	0	48	0	0	0	0
Observer's Signature	19					49					19	0	0	0	0	49	0	0	0	0
<u>W.H.H.</u>	20					50					20	0	0	0	0	50	0	0	0	0
Date Last Certified	21					51					21	0	0	0	0	51	0	0	0	0
	22					52	15	50	55	55	22	0	0	0	0	52	0	0	0	0
	23					53	15	55	60	60	23	0	0	0	0	53	0	0	0	0
Average Opacity (%)	24					54	55	55	50	60	24	0	0	0	0	54	0	0	0	0
Emission Point	25					55	50	50	50	50	25	0	0	0	0	55	0	0	0	0
	26					56	50	55	55	55	26	0	0	0	0	56	0	0	0	0
Sun Shadow Line	27					57	50	45	50	45	27	0	0	0	0	57	0	0	0	0
Observer's Position	28					58	45	45	40	40	28	0	0	0	0	58	0	0	0	0
	29					59	40	45	45	45	29	0	0	0	0	59	0	0	0	0

Comments: B - combined bladder stacks



Visible Emissions Observations- Burns Harbor

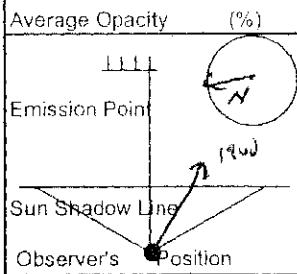
Observer: Warren Howell

Date: 4/17/9

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Source: BFC	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Bleeder Stacks	0	0	0	0	B	30	0	B	B	0	0	0	0	0	0	0	0	0	0	
Observation Point:	1	0	0	B	0	0	P	31	0	B	B	0	B	0	B	1	0	0	0	
West of BF	2	0	3	3	3	3	0	P	0	P	0	B	0	B	2	0	0	0	0	
Distance From:	3	0	0	0	0	33	0	0	0	0	0	0	0	0	3	0	0	0	0	
1500'	4	0	0	0	0	34	0	0	0	0	0	0	0	0	4	0	0	0	0	
Source Height: 150'	5	0	P	0	P	0	B	0	B	0	B	0	B	0	5	0	0	0	0	
Wind Direction: N	6	0	0	0	0	36	0	0	0	0	0	0	0	0	6	0	0	0	0	
Wind Speed: 5-10	7	0	0	0	0	37	0	0	0	0	0	0	0	0	7	0	0	0	0	
Background(s) Used:	8	0	0	0	0	38	0	0	0	0	0	0	0	0	8	0	0	0	0	
Sky	9	0	B	B	B	39	0	0	0	0	0	0	0	0	9	0	0	0	0	
	10	0	B	B	B	40	0	0	0	0	0	0	0	0	10	0	0	0	0	
Sky Conditions: Clear	11	0	0	0	0	41	0	0	0	0	0	0	0	0	11	0	0	0	0	
Ambient Temp.: 55	12	0	0	0	0	42	0	0	0	0	0	0	0	0	12	0	0	0	0	
Humidity: (50%) 50%	13	0	0	0	0	43	0	0	0	0	0	0	0	0	13	0	0	0	0	
Color of Emissions:	14	0	0	0	0	44	0	0	0	0	0	0	0	0	14	0	0	0	0	
	15	0	B	B	B	45	0	0	0	0	0	0	0	0	15	0	0	0	0	
Reading Cond: Good	16	0	0	0	0	46	0	0	0	0	0	0	0	0	16	0	0	0	0	
Observation	17	0	0	0	0	47	0	0	0	0	0	0	0	0	17	0	0	0	0	
Began 1900 Ended: 1932	18	0	0	0	0	48	0	0	0	0	0	0	0	0	18	0	0	0	0	
Observer's Signature:	19	0	0	0	0	49	0	0	0	0	0	0	0	0	19	0	0	0	0	
	20	0	B	B	B	50	0	0	0	0	0	0	0	0	20	0	0	0	0	
Date Last Certified	21	0	0	0	0	51	0	0	0	0	0	0	0	0	21	0	0	0	0	
	22	0	0	0	0	52	0	0	0	0	0	0	0	0	22	0	0	0	0	
	23	0	0	0	0	53	0	0	0	0	0	0	0	0	23	0	0	0	0	
Average Opacity (%)	24	0	0	0	0	54	0	0	0	0	0	0	0	0	24	0	0	0	0	
Emission Point	25	0	B	B	B	55	0	0	0	0	0	0	0	0	25	0	0	0	0	
	26	0	0	0	0	56	0	0	0	0	0	0	0	0	26	0	0	0	0	
	27	0	B	B	B	57	0	0	0	0	0	0	0	0	27	0	0	0	0	
Sun Shadow Line	28	0	B	B	B	58	0	0	0	0	0	0	0	0	28	0	0	0	0	
Observer's Position	29	0	B	B	B	59	0	0	0	0	0	0	0	0	29	0	0	0	0	

Comments: B - C - b ~ bleed - stacks



Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date 4-16-09

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Source: C-BF Bleeder	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Back DRAFT STACKS	0					30	30	35	35	30	0	0	0	0	0	30	0	0	0	0
Observation Point EAST OF	1					31	35	35	30	15	1	0	0	0	0	31	0	0	0	0
Bleeders	2					32	15	15	15	20	2	0	0	0	0	32	0	0	0	0
Distance From: 500'	3					33	15	10	10	15	3	0	0	0	0	33	0	0	0	0
	4					34	15	10	10	15	4	0	0	0	0	34	0	0	0	0
Source Height: 150'	5					35	25	20	25	25	5	0	0	0	0	35	0	0	0	0
Wind Direction: SE -3.5	6					36	15	10	10	10	6	0	0	0	0	36	0	0	0	0
Wind Speed: 3-5	7					37	15	10	10	10	7	0	0	0	0	37	0	0	0	0
Background(s) Used: SKY	8					38	10	10	10	10	8	0	0	0	0	38	0	0	0	0
	9					39	15	15	15	10	9	0	0	0	0	39	0	0	0	0
	10					40	10	10	10	10	10	0	0	0	0	40	0	0	0	0
Sky Conditions: Clear	11					41	10	10	10	15	11	0	0	0	0	41	0	0	0	0
Ambient Temp.: 42°	12					42	15	15	20	15	12	0	0	0	0	42	0	0	0	0
Humidity: (50%) 50% >	13					43	10	10	10	10	13	0	0	0	0	43	0	0	0	0
Color of Emissions: brown	14					44	15	10	15	15	14	0	0	0	0	44	0	0	0	0
	15					45	15	10	15	10	15	0	0	0	0	45	0	0	0	0
Reading Cond.: Good	16					46	10	10	10	10	16	0	0	0	0	46	0	0	0	0
Observation	17					47	10	10	10	10	17	0	0	0	0	47	0	0	0	0
Began 0800 Ended 0800	18					48	10	10	10	10	18	0	0	0	0	48	0	0	0	0
Observer's Signature:	19					49	10	10	10	10	19	0	0	0	0	49	0	0	0	0
C. Broda	20					50	10	10	0	0	20	0	0	0	0	50	0	0	0	0
Date Last Certified	21					51	0	0	0	0	21	0	0	0	0	51	0	0	0	0
3-11-09	22	10	10	10	10	52	0	0	0	0	22	0	0	0	0	52	0	0	0	0
	23	10	10	10	10	53	0	0	0	0	23	0	0	0	0	53	0	0	0	0
Average Opacity (%)	24	10	10	10	10	54	0	0	0	0	24	0	0	0	0	54	0	0	0	0
Emission Point	25	15	15	15	15	55	0	0	0	0	25	0	0	0	0	55	0	0	0	0
	26	15	25	25	25	56	0	0	0	0	26	0	0	0	0	56	0	0	0	0
	27	25	35	35	35	57	0	0	0	0	27	0	0	0	0	57	0	0	0	0
Sun Shadow Line	28	35	35	35	35	58	0	0	0	0	28	0	0	0	0	58	0	0	0	0
Observer's Position	29	35	30	30	30	59	0	0	0	0	29	0	0	0	0	59	0	0	0	0

Comments: Bleeder stacks CO MINE L16

Diagram showing Sun Shadow Line and Observer's Position relative to Emission Point.

Visible Emissions Observations- Burns Harbor

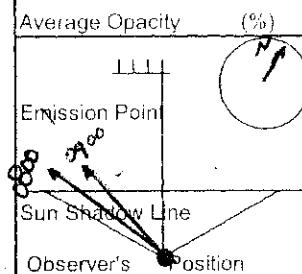
Observer H. Robinson

Date 4/16/09

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Source	<u>C FURNACE</u>	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BLEEDERS & BACKDRAFT STACKS		0	O ^B	O ^B	O ^B	O ^B	30	O ^B	O ^B	O ^B	O ^B	0	O ^B	O ^B	O ^B	O ^B	30	O ^B	O ^B	O ^B	
Observation Point:	1	O ^B	31	O ^B	O ^B	O ^B	O ^B	1	O ^B	O ^B	O ^B	O ^B	31	O ^B	O ^B	O ^B					
SOUTHEAST of STACKS	2	O ^B	32	O ^B	O ^B	O ^B	O ^B	2	O ^B	O ^B	O ^B	O ^B	32	O ^B	O ^B	O ^B					
Distance From:	3	O ^B	33	O ^B	O ^B	O ^B	O ^B	3	O ^B	O ^B	O ^B	O ^B	33	O ^B	O ^B	O ^B					
900 FT	4	O ^B	34	O ^B	O ^B	O ^B	O ^B	4	O ^B	O ^B	O ^B	O ^B	34	O ^B	O ^B	O ^B					
Source Height: 150 ft	5	O ^B	35	O ^B	O ^B	O ^B	O ^B	5	O ^B	O ^B	O ^B	O ^B	35	O ^B	O ^B	O ^B					
Wind Direction: S.E.	6	O ^B	36	O ^B	O ^B	O ^B	O ^B	6	O ^B	O ^B	O ^B	O ^B	36	O ^B	O ^B	O ^B					
Wind Speed: 5 mph	7	O ^B	37	O ^B	O ^B	O ^B	O ^B	7	O ^B	O ^B	O ^B	O ^B	37	O ^B	O ^B	O ^B					
Background(s) Used: SKY	8	O ^B	38	O ^B	O ^B	O ^B	O ^B	8	O ^B	O ^B	O ^B	O ^B	38	O ^B	O ^B	O ^B					
	9	O ^B	39	O ^B	O ^B	O ^B	O ^B	9	O ^B	O ^B	O ^B	O ^B	39	O ^B	O ^B	O ^B					
	10	O ^B	40	O ^B	O ^B	O ^B	O ^B	10	O ^B	O ^B	O ^B	O ^B	40	O ^B	O ^B	O ^B					
Sky Conditions: CLEAR	11	O ^B	41	O ^B	O ^B	O ^B	O ^B	11	O ^B	O ^B	O ^B	O ^B	41	O ^B	O ^B	O ^B					
Ambient Temp. 42°	12	O ^B	42	O ^B	O ^B	O ^B	O ^B	12	O ^B	O ^B	O ^B	O ^B	42	O ^B	O ^B	O ^B					
Humidity: (50%, 50%)	13	O ^B	43	O ^B	O ^B	O ^B	O ^B	13	O ^B	O ^B	O ^B	O ^B	43	O ^B	O ^B	O ^B					
Color of Emissions:	14	O ^B	44	O ^B	O ^B	O ^B	O ^B	14	O ^B	O ^B	O ^B	O ^B	44	O ^B	O ^B	O ^B					
	15	O ^B	45	O ^B	O ^B	O ^B	O ^B	15	O ^B	O ^B	O ^B	O ^B	45	O ^B	O ^B	O ^B					
Reading Cond. Good	16	O ^B	46	O ^B	O ^B	O ^B	O ^B	16	O ^B	O ^B	O ^B	O ^B	46	O ^B	O ^B	O ^B					
Observation	17	O ^B	47	O ^B	O ^B	O ^B	O ^B	17	O ^B	O ^B	O ^B	O ^B	47	O ^B	O ^B	O ^B					
Began: 0800 Ended: 0959	18	O ^B	48	O ^B	O ^B	O ^B	O ^B	18	O ^B	O ^B	O ^B	O ^B	48	O ^B	O ^B	O ^B					
Observer's Signature:	19	O ^B	49	O ^B	O ^B	O ^B	O ^B	19	O ^B	O ^B	O ^B	O ^B	49	O ^B	O ^B	O ^B					
<i>Harold Robinson</i>	20	O ^B	50	O ^B	O ^B	O ^B	O ^B	20	O ^B	O ^B	O ^B	O ^B	50	O ^B	O ^B	O ^B					
Date Last Certified	21	O ^B	51	O ^B	O ^B	O ^B	O ^B	21	O ^B	O ^B	O ^B	O ^B	51	O ^B	O ^B	O ^B					
3-11-09	22	O ^B	52	O ^B	O ^B	O ^B	O ^B	22	O ^B	O ^B	O ^B	O ^B	52	O ^B	O ^B	O ^B					
	23	O ^B	53	O ^B	O ^B	O ^B	O ^B	23	O ^B	O ^B	O ^B	O ^B	53	O ^B	O ^B	O ^B					
Average Opacity (%)	24	O ^B	54	O ^B	O ^B	O ^B	O ^B	24	O ^B	O ^B	O ^B	O ^B	54	O ^B	O ^B	O ^B					
Emission Point	25	O ^B	55	O ^B	O ^B	O ^B	O ^B	25	O ^B	O ^B	O ^B	O ^B	55	O ^B	O ^B	O ^B					
Sun Shadow Line	26	O ^B	56	O ^B	O ^B	O ^B	O ^B	26	O ^B	O ^B	O ^B	O ^B	56	O ^B	O ^B	O ^B					
Observer's Position	27	O ^B	57	O ^B	O ^B	O ^B	O ^B	27	O ^B	O ^B	O ^B	O ^B	57	O ^B	O ^B	O ^B					
	28	O ^B	58	O ^B	O ^B	O ^B	O ^B	28	O ^B	O ^B	O ^B	O ^B	58	O ^B	O ^B	O ^B					
	29	O ^B	59	O ^B	O ^B	O ^B	O ^B	29	O ^B	O ^B	O ^B	O ^B	59	O ^B	O ^B	O ^B					

Comments:



Visible Emissions Observations- Burns Harbor

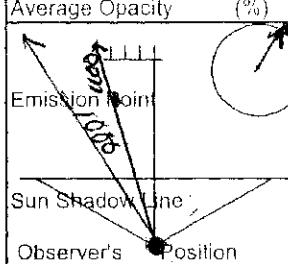
Observer: C. Broda

Date 4-16-09

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Source	C - BF Bleeders	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Back Draft Stacks		0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Observation Point:	SE	1	0	0	0	0	31	0	0	0	0	1	0	0	0	0	31	0	0	0	0
OF STACKS		2	0	0	0	0	32	0	0	0	0	2	0	0	0	0	32	0	0	0	0
Distance From:	0900'	3	0	0	0	0	33	0	0	0	0	3	0	0	0	0	33	0	0	0	0
		4	0	0	0	0	34	0	0	0	0	4	0	0	0	0	34	0	0	0	0
Source Height:	150'	5	0	0	0	0	35	0	0	0	0	5	0	0	0	0	35	0	0	0	0
Wind Direction:	S.E.	6	0	0	0	0	36	0	0	0	0	6	0	0	0	0	36	0	0	0	0
Wind Speed:	3-5	7	0	0	0	0	37	0	0	0	0	7	0	0	0	0	37	0	0	0	0
Background(s) Used:	SKY	8	0	0	0	0	38	0	0	0	0	8	0	0	0	0	38	0	0	0	0
		9	0	0	0	0	39	0	0	0	0	9	0	0	0	0	39	0	0	0	0
		10	0	0	0	0	40	0	0	0	0	10	0	0	0	0	40	0	0	0	0
Sky Conditions:	Clear	11	0	0	0	0	41	0	0	0	0	11	0	0	0	0	41	0	0	0	0
Ambient Temp.:	47°	12	0	0	0	0	42	0	0	0	0	12	0	0	0	0	42	0	0	0	0
Humidity:	(50%) 60% ⁷	13	0	0	0	0	43	0	0	0	0	13	0	0	0	0	43	0	0	0	0
Color of Emissions:		14	0	0	0	0	44	0	0	0	0	14	0	0	0	0	44	0	0	0	0
		15	0	0	0	0	45	0	0	0	0	15	0	0	0	0	45	0	0	0	0
Reading Cond.:	Good	16	0	0	0	0	46	0	0	0	0	16	0	0	0	0	46	0	0	0	0
Observation		17	0	0	0	0	47	0	0	0	0	17	0	0	0	0	47	0	0	0	0
Began: 1600 Ended: 1200		18	0	0	0	0	48	0	0	0	0	18	0	0	0	0	48	0	0	0	0
Observer's Signature:	C. Broda	19	0	0	0	0	49	0	0	0	0	19	0	0	0	0	49	0	0	0	0
Date Last Certified		20	0	0	0	0	50	0	0	0	0	20	0	0	0	0	50	0	0	0	0
		21	0	0	0	0	51	0	0	0	0	21	0	0	0	0	51	0	0	0	0
		22	0	0	0	0	52	0	0	0	0	22	0	0	0	0	52	0	0	0	0
		23	0	0	0	0	53	0	0	0	0	23	0	0	0	0	53	0	0	0	0
Average Opacity (%)		24	0	0	0	0	54	0	0	0	0	24	0	0	0	0	54	0	0	0	0
Emission Point		25	0	0	0	0	55	0	0	0	0	25	0	0	0	0	55	0	0	0	0
		26	0	0	0	0	56	0	0	0	0	26	0	0	0	0	56	0	0	0	0
		27	0	0	0	0	57	0	0	0	0	27	0	0	0	0	57	0	0	0	0
		28	0	0	0	0	58	0	0	0	0	28	0	0	0	0	58	0	0	0	0
		29	0	0	0	0	59	0	0	0	0	29	0	0	0	0	59	0	0	0	0

Comments: Bleeder stacks comingling 1105 Wind out of North



Visible Emissions Observations- Burns Harbor

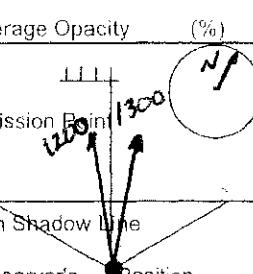
Observer: H. Robinson

Date: 4-16-09

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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BLEEDERS & BACKDRAFT STACKS	0	O ^B	O ^B	O ^B	O ^B	30	O ^B	O ^B	O ^B	O ^B	0	O ^B	O ^B	O ^B	O ^B	30	O ^B	O ^B	O ^B	O ^B
Observation Point:	1	O ^B	O ^B	O ^B	O ^B	31	O ^B	O ^B	O ^B	O ^B	1	O ^B	O ^B	O ^B	O ^B	31	O ^B	O ^B	O ^B	O ^B
SOUTHEAST OF STACKS	2	O ^B	O ^B	O ^B	O ^B	32	O ^B	O ^B	O ^B	O ^B	2	O ^B	O ^B	O ^B	O ^B	32	O ^B	O ^B	O ^B	O ^B
Distance From:	3	O ^B	O ^B	O ^B	O ^B	33	O ^B	O ^B	O ^B	O ^B	3	O ^B	O ^B	O ^B	O ^B	33	O ^B	O ^B	O ^B	O ^B
900 ft.	4	O ^B	O ^B	O ^B	O ^B	34	O ^B	O ^B	O ^B	O ^B	4	O ^B	O ^B	O ^B	O ^B	34	O ^B	O ^B	O ^B	O ^B
Source Height: 150 ft	5	O ^B	O ^B	O ^B	O ^B	35	O ^B	O ^B	O ^B	O ^B	5	O ^B	O ^B	O ^B	O ^B	35	O ^B	O ^B	O ^B	O ^B
Wind Direction: NORTH	6	O ^B	O ^B	O ^B	O ^B	36	O ^B	O ^B	O ^B	O ^B	6	O ^B	O ^B	O ^B	O ^B	36	O ^B	O ^B	O ^B	O ^B
Wind Speed: 5-10 MPH	7	O ^B	O ^B	O ^B	O ^B	37	O ^B	O ^B	O ^B	O ^B	7	O ^B	O ^B	O ^B	O ^B	37	O ^B	O ^B	O ^B	O ^B
Background(s) Used: Sky	8	O ^B	O ^B	O ^B	O ^B	38	O ^B	O ^B	O ^B	O ^B	8	O ^B	O ^B	O ^B	O ^B	38	O ^B	O ^B	O ^B	O ^B
	9	O ^B	O ^B	O ^B	O ^B	39	O ^B	O ^B	O ^B	O ^B	9	O ^B	O ^B	O ^B	O ^B	39	O ^B	O ^B	O ^B	O ^B
	10	O ^B	O ^B	O ^B	O ^B	40	O ^B	O ^B	O ^B	O ^B	10	O ^B	O ^B	O ^B	O ^B	40	O ^B	O ^B	O ^B	O ^B
Sky Conditions: CLEAR	11	O ^B	O ^B	O ^B	O ^B	41	O ^B	O ^B	O ^B	O ^B	11	O ^B	O ^B	O ^B	O ^B	41	O ^B	O ^B	O ^B	O ^B
Ambient Temp.: 47°	12	O ^B	O ^B	O ^B	O ^B	42	O ^B	O ^B	O ^B	O ^B	12	O ^B	O ^B	O ^B	O ^B	42	O ^B	O ^B	O ^B	O ^B
Humidity: (50%) 50% >	13	O ^B	O ^B	O ^B	O ^B	43	O ^B	O ^B	O ^B	O ^B	13	O ^B	O ^B	O ^B	O ^B	43	O ^B	O ^B	O ^B	O ^B
Color of Emissions:	14	O ^B	O ^B	O ^B	O ^B	44	O ^B	O ^B	O ^B	O ^B	14	O ^B	O ^B	O ^B	O ^B	44	O ^B	O ^B	O ^B	O ^B
	15	O ^B	O ^B	O ^B	O ^B	45	O ^B	O ^B	O ^B	O ^B	15	O ^B	O ^B	O ^B	O ^B	45	O ^B	O ^B	O ^B	O ^B
Reading Cond.: GOOD	16	O ^B	O ^B	O ^B	O ^B	46	O ^B	O ^B	O ^B	O ^B	16	O ^B	O ^B	O ^B	O ^B	46	O ^B	O ^B	O ^B	O ^B
Observation	17	O ^B	O ^B	O ^B	O ^B	47	O ^B	O ^B	O ^B	O ^B	17	O ^B	O ^B	O ^B	O ^B	47	O ^B	O ^B	O ^B	O ^B
Began: 1200 Ended: 1359	18	O ^B	O ^B	O ^B	O ^B	48	O ^B	O ^B	O ^B	O ^B	18	O ^B	O ^B	O ^B	O ^B	48	O ^B	O ^B	O ^B	O ^B
Observer's Signature:	19	O ^B	O ^B	O ^B	O ^B	49	O ^B	O ^B	O ^B	O ^B	19	O ^B	O ^B	O ^B	O ^B	49	O ^B	O ^B	O ^B	O ^B
Harold Robinson	20	O ^B	O ^B	O ^B	O ^B	50	O ^B	O ^B	O ^B	O ^B	20	O ^B	O ^B	O ^B	O ^B	50	O ^B	O ^B	O ^B	O ^B
Date Last Certified	21	O ^B	O ^B	O ^B	O ^B	51	O ^B	O ^B	O ^B	O ^B	21	O ^B	O ^B	O ^B	O ^B	51	O ^B	O ^B	O ^B	O ^B
3-11-09	22	O ^B	O ^B	O ^B	O ^B	52	O ^B	O ^B	O ^B	O ^B	22	O ^B	O ^B	O ^B	O ^B	52	O ^B	O ^B	O ^B	O ^B
	23	O ^B	O ^B	O ^B	O ^B	53	O ^B	O ^B	O ^B	O ^B	23	O ^B	O ^B	O ^B	O ^B	53	O ^B	O ^B	O ^B	O ^B
Average Opacity (%)	24	O ^B	O ^B	O ^B	O ^B	54	O ^B	O ^B	O ^B	O ^B	24	O ^B	O ^B	O ^B	O ^B	54	O ^B	O ^B	O ^B	O ^B
Emission Point	25	O ^B	O ^B	O ^B	O ^B	55	O ^B	O ^B	O ^B	O ^B	25	O ^B	O ^B	O ^B	O ^B	55	O ^B	O ^B	O ^B	O ^B
111 1300 N	26	O ^B	O ^B	O ^B	O ^B	56	O ^B	O ^B	O ^B	O ^B	26	O ^B	O ^B	O ^B	O ^B	56	O ^B	O ^B	O ^B	O ^B
Sun Shadow Line	27	O ^B	O ^B	O ^B	O ^B	57	O ^B	O ^B	O ^B	O ^B	27	O ^B	O ^B	O ^B	O ^B	57	O ^B	O ^B	O ^B	O ^B
Observer's Position	28	O ^B	O ^B	O ^B	O ^B	58	O ^B	O ^B	O ^B	O ^B	28	O ^B	O ^B	O ^B	O ^B	58	O ^B	O ^B	O ^B	O ^B
	29	O ^B	O ^B	O ^B	O ^B	59	O ^B	O ^B	O ^B	O ^B	29	O ^B	O ^B	O ^B	O ^B	59	O ^B	O ^B	O ^B	O ^B

Comments:



Visible Emissions Observations- Burns Harbor

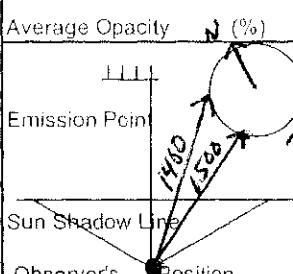
Observer: C. Broda

Date: 4-16-09

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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	
Brick DRAFT STACKS	0	0°	0°	0°	0°	30	0°	0°	0°	0°	0	0°	0°	0°	0°	30	0°	0°	0°	0°	
Observation Point	1	0°	0°	0°	0°	31	0°	0°	0°	0°	1	0°	0°	0°	0°	31	0°	0°	0°	0°	
of stacks	2	0°	0°	0°	0°	32	0°	0°	0°	0°	2	0°	0°	0°	0°	32	0°	0°	0°	0°	
Distance From:	900'	3	0°	0°	0°	0°	33	0°	0°	0°	0°	3	0°	0°	0°	0°	33	0°	0°	0°	0°
	4	0°	0°	0°	0°	34	0°	0°	0°	0°	4	0°	0°	0°	0°	34	0°	0°	0°	0°	
Source Height:	150'	5	0°	0°	0°	0°	35	0°	0°	0°	0°	5	0°	0°	0°	0°	35	0°	0°	0°	0°
Wind Direction:	NORTH	6	0°	0°	0°	0°	36	0°	0°	0°	0°	6	0°	0°	0°	0°	36	0°	0°	0°	0°
Wind Speed:	5-10	7	0°	0°	0°	0°	37	0°	0°	0°	0°	7	0°	0°	0°	0°	37	0°	0°	0°	0°
Background(s) Used:	SKY	8	0°	0°	0°	0°	38	0°	0°	0°	0°	8	0°	0°	0°	0°	38	0°	0°	0°	0°
	9	0°	0°	0°	0°	39	0°	0°	0°	0°	9	0°	0°	0°	0°	39	0°	0°	0°	0°	
	10	0°	0°	0°	0°	40	0°	0°	0°	0°	10	0°	0°	0°	0°	40	0°	0°	0°	0°	
Sky Conditions:	Clear	11	0°	0°	0°	0°	41	0°	0°	0°	0°	11	0°	0°	0°	0°	41	0°	0°	0°	0°
Ambient Temp.:	52°	12	0°	0°	0°	0°	42	0°	0°	0°	0°	12	0°	0°	0°	0°	42	0°	0°	0°	0°
Humidity: (50%) 7	13	0°	0°	0°	0°	43	0°	0°	0°	0°	13	0°	0°	0°	0°	43	0°	0°	0°	0°	
Color of Emissions		14	0°	0°	0°	0°	44	0°	0°	0°	0°	14	0°	0°	0°	0°	44	0°	0°	0°	0°
		15	0°	0°	0°	0°	45	0°	0°	0°	0°	15	0°	0°	0°	0°	45	0°	0°	0°	0°
Reading Cond.:	Good	16	0°	0°	0°	0°	46	0°	0°	0°	0°	16	0°	0°	0°	0°	46	0°	0°	0°	0°
Observation		17	0°	0°	0°	0°	47	0°	0°	0°	0°	17	0°	0°	0°	0°	47	0°	0°	0°	0°
Began 1400 Ended 1600		18	0°	0°	0°	0°	48	0°	0°	0°	0°	18	0°	0°	0°	0°	48	0°	0°	0°	0°
Observer's Signature:		19	0°	0°	0°	0°	49	0°	0°	0°	0°	19	0°	0°	0°	0°	49	0°	0°	0°	0°
		20	0°	0°	0°	0°	50	0°	0°	0°	0°	20	0°	0°	0°	0°	50	0°	0°	0°	0°
Date Last Certified		21	0°	0°	0°	0°	51	0°	0°	0°	0°	21	0°	0°	0°	0°	51	0°	0°	0°	0°
		22	0°	0°	0°	0°	52	0°	0°	0°	0°	22	0°	0°	0°	0°	52	0°	0°	0°	0°
		23	0°	0°	0°	0°	53	0°	0°	0°	0°	23	0°	0°	0°	0°	53	0°	0°	0°	0°
Average Opacity	N (%)	24	0°	0°	0°	0°	54	0°	0°	0°	0°	24	0°	0°	0°	0°	54	0°	0°	0°	0°
Emission Point		25	0°	0°	0°	0°	55	0°	0°	0°	0°	25	0°	0°	0°	0°	55	0°	0°	0°	0°
		26	0°	0°	0°	0°	56	0°	0°	0°	0°	26	0°	0°	0°	0°	56	0°	0°	0°	0°
		27	0°	0°	0°	0°	57	0°	0°	0°	0°	27	0°	0°	0°	0°	57	0°	0°	0°	0°
Sun Shadow Line		28	0°	0°	0°	0°	58	0°	0°	0°	0°	28	0°	0°	0°	0°	58	0°	0°	0°	0°
Observer's Position		29	0°	0°	0°	0°	59	0°	0°	0°	0°	29	0°	0°	0°	0°	59	0°	0°	0°	0°

Comments: Bleeder stacks Ca Mang Line



Visible Emissions Observations- Burns Harbor

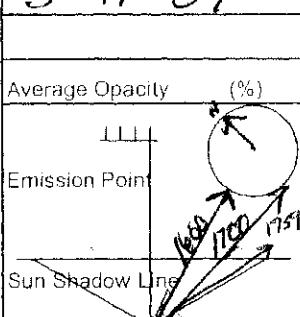
Observer: C. Broda

Date: 4-16-09

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Source: C-BF Breeder	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Back Draft Stacks	0	0° 0' 0'' 0''	30	0° 0' 0'' 0''	0	0° 0' 0'' 0''	30	0° 0' 0'' 0''	0	0° 0' 0'' 0''	30	0° 0' 0'' 0''	0	0° 0' 0'' 0''	30	0° 0' 0'' 0''	0	0° 0' 0'' 0''	30	0° 0' 0'' 0''
Observation Point: SW	1	0° 0' 0'' 0''	31	0° 0' 0'' 0''	1	0° 0' 0'' 0''	31	0° 0' 0'' 0''	1	0° 0' 0'' 0''	31	0° 0' 0'' 0''	1	0° 0' 0'' 0''	31	0° 0' 0'' 0''	1	0° 0' 0'' 0''	31	0° 0' 0'' 0''
OF STACKS	2	0° 0' 0'' 0''	32	0° 0' 0'' 0''	2	0° 0' 0'' 0''	32	0° 0' 0'' 0''	2	0° 0' 0'' 0''	32	0° 0' 0'' 0''	2	0° 0' 0'' 0''	32	0° 0' 0'' 0''	2	0° 0' 0'' 0''	32	0° 0' 0'' 0''
Distance From: 1200'	3	0° 0' 0'' 0''	33	0° 0' 0'' 0''	3	0° 0' 0'' 0''	33	0° 0' 0'' 0''	3	0° 0' 0'' 0''	33	0° 0' 0'' 0''	3	0° 0' 0'' 0''	33	0° 0' 0'' 0''	3	0° 0' 0'' 0''	33	0° 0' 0'' 0''
	4	0° 0' 0'' 0''	34	0° 0' 0'' 0''	4	0° 0' 0'' 0''	34	0° 0' 0'' 0''	4	0° 0' 0'' 0''	34	0° 0' 0'' 0''	4	0° 0' 0'' 0''	34	0° 0' 0'' 0''	4	0° 0' 0'' 0''	34	0° 0' 0'' 0''
Source Height: 150'	5	0° 0' 0'' 0''	35	0° 0' 0'' 0''	5	0° 0' 0'' 0''	35	0° 0' 0'' 0''	5	0° 0' 0'' 0''	35	0° 0' 0'' 0''	5	0° 0' 0'' 0''	35	0° 0' 0'' 0''	5	0° 0' 0'' 0''	35	0° 0' 0'' 0''
Wind Direction: NORTH	6	0° 0' 0'' 0''	36	0° 0' 0'' 0''	6	0° 0' 0'' 0''	36	0° 0' 0'' 0''	6	0° 0' 0'' 0''	36	0° 0' 0'' 0''	6	0° 0' 0'' 0''	36	0° 0' 0'' 0''	6	0° 0' 0'' 0''	36	0° 0' 0'' 0''
Wind Speed: 5-10	7	0° 0' 0'' 0''	37	0° 0' 0'' 0''	7	0° 0' 0'' 0''	37	0° 0' 0'' 0''	7	0° 0' 0'' 0''	37	0° 0' 0'' 0''	7	0° 0' 0'' 0''	37	0° 0' 0'' 0''	7	0° 0' 0'' 0''	37	0° 0' 0'' 0''
Background(s) Used: SKY	8	0° 0' 0'' 0''	38	0° 0' 0'' 0''	8	0° 0' 0'' 0''	38	0° 0' 0'' 0''	8	0° 0' 0'' 0''	38	0° 0' 0'' 0''	8	0° 0' 0'' 0''	38	0° 0' 0'' 0''	8	0° 0' 0'' 0''	38	0° 0' 0'' 0''
	9	0° 0' 0'' 0''	39	0° 0' 0'' 0''	9	0° 0' 0'' 0''	39	0° 0' 0'' 0''	9	0° 0' 0'' 0''	39	0° 0' 0'' 0''	9	0° 0' 0'' 0''	39	0° 0' 0'' 0''	9	0° 0' 0'' 0''	39	0° 0' 0'' 0''
	10	0° 0' 0'' 0''	40	0° 0' 0'' 0''	10	0° 0' 0'' 0''	40	0° 0' 0'' 0''	10	0° 0' 0'' 0''	40	0° 0' 0'' 0''	10	0° 0' 0'' 0''	40	0° 0' 0'' 0''	10	0° 0' 0'' 0''	40	0° 0' 0'' 0''
Sky Conditions: CLEAR	11	0° 0' 0'' 0''	41	0° 0' 0'' 0''	11	0° 0' 0'' 0''	41	0° 0' 0'' 0''	11	0° 0' 0'' 0''	41	0° 0' 0'' 0''	11	0° 0' 0'' 0''	41	0° 0' 0'' 0''	11	0° 0' 0'' 0''	41	0° 0' 0'' 0''
Ambient Temp.: 49°	12	0° 0' 0'' 0''	42	0° 0' 0'' 0''	12	0° 0' 0'' 0''	42	0° 0' 0'' 0''	12	0° 0' 0'' 0''	42	0° 0' 0'' 0''	12	0° 0' 0'' 0''	42	0° 0' 0'' 0''	12	0° 0' 0'' 0''	42	0° 0' 0'' 0''
Humidity: (50% 50%)	13	0° 0' 0'' 0''	43	0° 0' 0'' 0''	13	0° 0' 0'' 0''	43	0° 0' 0'' 0''	13	0° 0' 0'' 0''	43	0° 0' 0'' 0''	13	0° 0' 0'' 0''	43	0° 0' 0'' 0''	13	0° 0' 0'' 0''	43	0° 0' 0'' 0''
Color of Emissions: Rust	14	0° 0' 0'' 0''	44	0° 0' 0'' 0''	14	0° 0' 0'' 0''	44	0° 0' 0'' 0''	14	0° 0' 0'' 0''	44	0° 0' 0'' 0''	14	0° 0' 0'' 0''	44	0° 0' 0'' 0''	14	0° 0' 0'' 0''	44	0° 0' 0'' 0''
	15	0° 0' 0'' 0''	45	0° 0' 0'' 0''	15	0° 0' 0'' 0''	45	0° 0' 0'' 0''	15	0° 0' 0'' 0''	45	0° 0' 0'' 0''	15	0° 0' 0'' 0''	45	0° 0' 0'' 0''	15	0° 0' 0'' 0''	45	0° 0' 0'' 0''
Reading Cond: Good	16	0° 0' 0'' 0''	46	0° 0' 0'' 0''	16	0° 0' 0'' 0''	46	0° 0' 0'' 0''	16	0° 0' 0'' 0''	46	0° 0' 0'' 0''	16	0° 0' 0'' 0''	46	0° 0' 0'' 0''	16	0° 0' 0'' 0''	46	0° 0' 0'' 0''
Observation	17	0° 0' 0'' 0''	47	0° 0' 0'' 0''	17	0° 0' 0'' 0''	47	0° 0' 0'' 0''	17	0° 0' 0'' 0''	47	0° 0' 0'' 0''	17	0° 0' 0'' 0''	47	0° 0' 0'' 0''	17	0° 0' 0'' 0''	47	0° 0' 0'' 0''
Began 1600 Ended:	18	0° 0' 0'' 0''	48	0° 0' 0'' 0''	18	0° 0' 0'' 0''	48	0° 0' 0'' 0''	18	0° 0' 0'' 0''	48	0° 0' 0'' 0''	18	0° 0' 0'' 0''	48	0° 0' 0'' 0''	18	0° 0' 0'' 0''	48	0° 0' 0'' 0''
Observer's Signature:	19	0° 0' 0'' 0''	49	0° 0' 0'' 0''	19	0° 0' 0'' 0''	49	0° 0' 0'' 0''	19	0° 0' 0'' 0''	49	0° 0' 0'' 0''	19	0° 0' 0'' 0''	49	0° 0' 0'' 0''	19	0° 0' 0'' 0''	49	0° 0' 0'' 0''
C. Broda	20	0° 0' 0'' 0''	50	0° 0' 0'' 0''	20	0° 0' 0'' 0''	50	0° 0' 0'' 0''	20	0° 0' 0'' 0''	50	0° 0' 0'' 0''	20	0° 0' 0'' 0''	50	0° 0' 0'' 0''	20	0° 0' 0'' 0''	50	0° 0' 0'' 0''
Date Last Certified	21	0° 0' 0'' 0''	51	0° 0' 0'' 0''	21	0° 0' 0'' 0''	51	0° 0' 0'' 0''	21	0° 0' 0'' 0''	51	0° 0' 0'' 0''	21	0° 0' 0'' 0''	51	0° 0' 0'' 0''	21	0° 0' 0'' 0''	51	0° 0' 0'' 0''
3-11-09	22	0° 0' 0'' 0''	52	0° 0' 0'' 0''	22	0° 0' 0'' 0''	52	0° 0' 0'' 0''	22	0° 0' 0'' 0''	52	0° 0' 0'' 0''	22	0° 0' 0'' 0''	52	0° 0' 0'' 0''	22	0° 0' 0'' 0''	52	0° 0' 0'' 0''
	23	0° 0' 0'' 0''	53	0° 0' 0'' 0''	23	0° 0' 0'' 0''	53	0° 0' 0'' 0''	23	0° 0' 0'' 0''	53	0° 0' 0'' 0''	23	0° 0' 0'' 0''	53	0° 0' 0'' 0''	23	0° 0' 0'' 0''	53	0° 0' 0'' 0''
Average Opacity (%)	24	0° 0' 0'' 0''	54	0° 0' 0'' 0''	24	0° 0' 0'' 0''	54	0° 0' 0'' 0''	24	0° 0' 0'' 0''	54	0° 0' 0'' 0''	24	0° 0' 0'' 0''	54	0° 0' 0'' 0''	24	0° 0' 0'' 0''	54	0° 0' 0'' 0''
Emission Point	25	0° 0' 0'' 0''	55	0° 0' 0'' 0''	25	0° 0' 0'' 0''	55	0° 0' 0'' 0''	25	0° 0' 0'' 0''	55	0° 0' 0'' 0''	25	0° 0' 0'' 0''	55	0° 0' 0'' 0''	25	0° 0' 0'' 0''	55	0° 0' 0'' 0''
	26	0° 0' 0'' 0''	56	0° 0' 0'' 0''	26	0° 0' 0'' 0''	56	0° 0' 0'' 0''	26	0° 0' 0'' 0''	56	0° 0' 0'' 0''	26	0° 0' 0'' 0''	56	0° 0' 0'' 0''	26	0° 0' 0'' 0''	56	0° 0' 0'' 0''
	27	0° 0' 0'' 0''	57	0° 0' 0'' 0''	27	0° 0' 0'' 0''	57	0° 0' 0'' 0''	27	0° 0' 0'' 0''	57	0° 0' 0'' 0''	27	0° 0' 0'' 0''	57	0° 0' 0'' 0''	27	0° 0' 0'' 0''	57	0° 0' 0'' 0''
Sun Shadow Line	28	0° 0' 0'' 0''	58	0° 0' 0'' 0''	28	0° 0' 0'' 0''	58	0° 0' 0'' 0''	28	0° 0' 0'' 0''	58	0° 0' 0'' 0''	28	0° 0' 0'' 0''	58	0° 0' 0'' 0''	28	0° 0' 0'' 0''	58	0° 0' 0'' 0''
Observer's Position	29	0° 0' 0'' 0''	59	0° 0' 0'' 0''	29	0° 0' 0'' 0''	59	0° 0' 0'' 0''	29	0° 0' 0'' 0''	59	0° 0' 0'' 0''	29	0° 0' 0'' 0''	59	0° 0' 0'' 0''	29	0° 0' 0'' 0''	59	0° 0' 0'' 0''

Comments: * Warm Howay obscured 1746 -



Visible Emissions Observations- Burns Harbor

Observer: Warren Haward

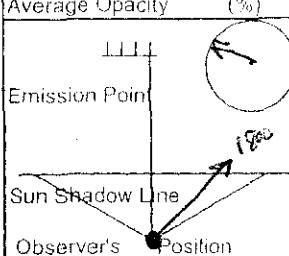
Altitude: 48.50

Date: 4/16/09

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Source: CBF Blower	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Back Draft Stacks	6	40	35	35	35	30					6					30				
Observation Point (WSS) of Stacks	1	30	30	35	25	31					1					31				
Distance From: 1200'	2	35	35	40	40	32					2					32				
Source Height: 150'	3	50	65	80	75	33					3					33				
Wind Direction: North	4	70	70	60	60	34					4					34				
Wind Speed: 5-10	5	60	50	40	40	35					5					35				
Background(s) Used: Sky	6	50	50	40	35	36					6					36				
	7	35	30	30	40	37					7					37				
Sky Conditions: Clear	8					38					8					38				
Ambient Temp.: 40	9					39					9					39				
Humidity: (50% 150%)	10					40					10					40				
Color of Emissions: Rust	11					41					11					41				
	12					42					12					42				
Reading Cond: Good	13					43					13					43				
Observation	14					44					14					44				
Began: 180° Ended: 1807	15					45					15					45				
Observer's Signature:	16					46					16					46				
	17					47					17					47				
Date Last Certified	18					48					18					48				
	19					49					19					49				
	20					50					20					50				
Average Opacity (%)	21					51					21					51				
Emission Point	22					52					22					52				
	23					53					23					53				
	24					54					24					54				
	25					55					25					55				
	26					56					26					56				
	27					57					27					57				
	28					58					28					58				
	29					59					29					59				

Comments: Blower closed 1807



Visible Emissions Observations- Burns Harbor

Observer C. Broda

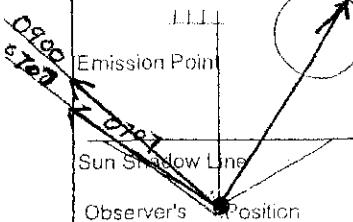
Date 4-10-09

Page 1 of 2

Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Source C-BF Bleeder	(M)	0				(M)	30	B	B	B	(M)	0	B	B	B	(M)	30	B	B	B
Back DRAFT STACKS	0					30	O	O	O	O	0	O	O	O	O	30	O	O	O	O
Observation Point S.E.	1					31	O	O	O	O	1	O	O	O	O	31	O	O	O	O
OF STACKS	2					32	O	O	O	O	2	O	O	O	O	32	O	O	O	O
Distance From: 900'	3					33	O	O	O	O	3	O	O	O	O	33	O	O	O	O
	4					34	O	O	O	O	4	O	O	O	O	34	O	O	O	O
Source Height: 150'	5					35	O	O	O	O	5	O	O	O	O	35	O	O	O	O
Wind Direction: NORTHEAST	6					36	O	O	O	O	6	O	O	O	O	36	O	O	O	O
Wind Speed: 10-15	7	B	B	B	B	37	O	O	O	O	7	O	O	O	O	37	O	O	O	O
Background(s) Used: SKY	8	B	B	B	B	38	O	O	O	O	8	O	O	O	O	38	O	O	O	O
	9	B	B	B	B	39	O	O	O	O	9	O	O	O	O	39	O	O	O	O
	10	B	B	B	B	40	B	B	B	B	10	B	B	B	B	40	B	B	B	B
Sky Conditions: OVERCAST	11	B	B	B	B	41	B	B	B	B	11	B	B	B	B	41	B	B	B	B
Ambient Temp: 41°	12	B	B	B	B	42	B	B	B	B	12	B	B	B	B	42	B	B	B	B
Humidity: (50%) 60% >	13	B	B	B	B	43	B	B	B	B	13	B	B	B	B	43	B	B	B	B
Color of Emissions:	14	B	B	B	B	44	B	B	B	B	14	B	B	B	B	44	B	B	B	B
	15	B	B	B	B	45	B	B	B	B	15	B	B	B	B	45	B	B	B	B
Reading Cond: Good	16	B	B	B	B	46	B	B	B	B	16	B	B	B	B	46	B	B	B	B
Observation	17	B	B	B	B	47	B	B	B	B	17	B	B	B	B	47	B	B	B	B
Began 0701 Ended 0900	18	B	B	B	B	48	B	B	B	B	18	B	B	B	B	48	B	B	B	B
Observer's Signature:	19	B	B	B	B	49	B	B	B	B	19	B	B	B	B	49	B	B	B	B
C. Broda	20	B	B	B	B	50	B	B	B	B	20	B	B	B	B	50	B	B	B	B
Date Last Certified	21	B	B	B	B	51	B	B	B	B	21	B	B	B	B	51	B	B	B	B
3-11-09	22	B	B	B	B	52	B	B	B	B	22	B	B	B	B	52	B	B	B	B
	23	B	B	B	B	53	B	B	B	B	23	B	B	B	B	53	B	B	B	B
Average Opacity (%)	24	B	B	B	B	54	B	B	B	B	24	B	B	B	B	54	B	B	B	B
	25	B	B	B	B	55	B	B	B	B	25	B	B	B	B	55	B	B	B	B
Emission Point	26	B	B	B	B	56	B	B	B	B	26	B	B	B	B	56	B	B	B	B
	27	B	B	B	B	57	B	B	B	B	27	B	B	B	B	57	B	B	B	B
Sun Shadow Line	28	B	B	B	B	58	B	B	B	B	28	B	B	B	B	58	B	B	B	B
Observer's Position	29	B	B	B	B	59	B	B	B	B	29	B	B	B	B	59	B	B	B	B

Comments:

Bleeder STACKS CD MIN 6 LINE 6



Visible Emissions Observations- Burns Harbor

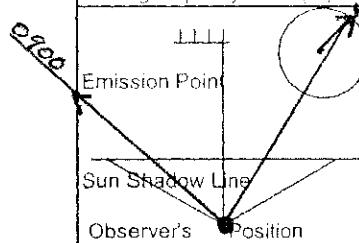
Observer: C. Broda

Date: 4-10-09

Page 2 of 2

Source	C-BF Bleeder	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Back Draft Stacks		0	○	○	○	○	30	○	○	○	○	0	○	○	○	○	30	○	○	○	○
Observation Point	SE.	1	○	○	○	○	31	○	○	○	○	1	○	○	○	○	31	○	○	○	○
OF Stacks		2	○	○	○	○	32	○	○	○	○	2	○	○	○	○	32	○	○	○	○
Distance From:	900'	3	○	○	○	○	33	○	○	○	○	3	○	○	○	○	33	○	○	○	○
		4	○	○	○	○	34	○	○	○	○	4	○	○	○	○	34	○	○	○	○
Source Height:	150'	5	○	○	○	○	35	○	○	○	○	5	○	○	○	○	35	○	○	○	○
Wind Direction:	N.E.	6	○	○	○	○	36	○	○	○	○	6	○	○	○	○	36	○	○	○	○
Wind Speed:	10-15	7	○	○	○	○	37	○	○	○	○	7	○	○	○	○	37	○	○	○	○
Background(s) Used:	SKY	8	○	○	○	○	38	○	○	○	○	8	○	○	○	○	38	○	○	○	○
		9	○	○	○	○	39	○	○	○	○	9	○	○	○	○	39	○	○	○	○
		10	○	○	○	○	40	○	○	○	○	10	○	○	○	○	40	○	○	○	○
Sky Conditions:	PARTLY CLOUDY	11	○	○	○	○	41	○	○	○	○	11	○	○	○	○	41	○	○	○	○
Ambient Temp.:	40°	12	○	○	○	○	42	○	○	○	○	12	○	○	○	○	42				
Humidity: (50% 50%)	>	13	○	○	○	○	43	○	○	○	○	13	○	○	○	○	43				
Color of Emissions:		14	○	○	○	○	44	○	○	○	○	14	○	○	○	○	44				
		15	○	○	○	○	45	○	○	○	○	15	○	○	○	○	45				
Reading Cond.:	Good	16	○	○	○	○	46	○	○	○	○	16	○	○	○	○	46				
Observation		17	○	○	○	○	47	○	○	○	○	17	○	○	○	○	47				
Began:	0800	Ended:	1042		18	○	○	○	○	○	○	18	○	○	○	○	48				
Observer's Signature:		19	○	○	○	○	49	○	○	○	○	19	○	○	○	○	49				
		20	○	○	○	○	50	○	○	○	○	20	○	○	○	○	50				
Date Last Certified		21	○	○	○	○	51	○	○	○	○	21	○	○	○	○	51				
		22	○	○	○	○	52	○	○	○	○	22	○	○	○	○	52				
		23	○	○	○	○	53	○	○	○	○	23	○	○	○	○	53				
Average Opacity (%)		24	○	○	○	○	54	○	○	○	○	24	○	○	○	○	54				
Emission Point		25	○	○	○	○	55	○	○	○	○	25	○	○	○	○	55				
Sun Shadow Line		26	○	○	○	○	56	○	○	○	○	26	○	○	○	○	56				
Observer's Position		27	○	○	○	○	57	○	○	○	○	27	○	○	○	○	57				
		28	○	○	○	○	58	○	○	○	○	28	○	○	○	○	58				
		29	○	○	○	○	59	○	○	○	○	29	○	○	○	○	59				

Comments: Bleeder stacks CO mingling



Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date 4-9-09

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Source: C Blast Furnace	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Bleeder-Pack Draft	0					30	♂	♂	♂	♂	0	♂	♂	♂	♂	30	♂	♂	♂	♂
Stacks	1					31	♂	♂	♂	♂	1	♂	♂	♂	♂	31	♂	♂	♂	♂
Observation Point: S.E.						32	♂	♂	♂	♂	2	♂	♂	♂	♂	32	♂	♂	♂	♂
OF STACKS	2					33	♂	♂	♂	♂	3	♂	♂	♂	♂	33	♂	♂	♂	♂
Distance From: 900'	3					34	♂	♂	♂	♂	4	♂	♂	♂	♂	34	♂	♂	♂	♂
	4					35	♂	♂	♂	♂	5	♂	♂	♂	♂	35	♂	♂	♂	♂
Source Height: 150'	5					36	♂	♂	♂	♂	6	♂	♂	♂	♂	36	♂	♂	♂	♂
Wind Direction: West	6					37	♂	♂	♂	♂	7	♂	♂	♂	♂	37	♂	♂	♂	♂
Wind Speed: 5-10	7					38	♂	♂	♂	♂	8	♂	♂	♂	♂	38	♂	♂	♂	♂
Background(s) Used: SKY	8					39	♂	♂	♂	♂	9	♂	♂	♂	♂	39	♂	♂	♂	♂
	9					40	♂	♂	♂	♂	10	♂	♂	♂	♂	40	♂	♂	♂	♂
Sky Conditions: Sunny	11					41	♂	♂	♂	♂	11	♂	♂	♂	♂	41	♂	♂	♂	♂
Ambient Temp.: 42°	12					42	♂	♂	♂	♂	12	♂	♂	♂	♂	42	♂	♂	♂	♂
Humidity: (50%) 60%	13					43	♂	♂	♂	♂	13	♂	♂	♂	♂	43	♂	♂	♂	♂
Color of Emissions:	14					44	♂	♂	♂	♂	14	♂	♂	♂	♂	44	♂	♂	♂	♂
	15					45	♂	♂	♂	♂	15	♂	♂	♂	♂	45	♂	♂	♂	♂
Reading Cond.: Good	16					46	♂	♂	♂	♂	16	♂	♂	♂	♂	46	♂	♂	♂	♂
Observation	17					47	♂	♂	♂	♂	17	♂	♂	♂	♂	47	♂	♂	♂	♂
Began: 0618 Ended: 0800	18	♂	♂	♂	♂	48	♂	♂	♂	♂	18	♂	♂	♂	♂	48	♂	♂	♂	♂
Observer's Signature:	19	♂	♂	♂	♂	49	♂	♂	♂	♂	19	♂	♂	♂	♂	49	♂	♂	♂	♂
C. Borda	20	♂	♂	♂	♂	50	♂	♂	♂	♂	20	♂	♂	♂	♂	50	♂	♂	♂	♂
Date Last Certified	21	♂	♂	♂	♂	51	♂	♂	♂	♂	21	♂	♂	♂	♂	51	♂	♂	♂	♂
3-11-09	22	♂	♂	♂	♂	52	♂	♂	♂	♂	22	♂	♂	♂	♂	52	♂	♂	♂	♂
	23	♂	♂	♂	♂	53	♂	♂	♂	♂	23	♂	♂	♂	♂	53	♂	♂	♂	♂
Average Opacity (%)	24	♂	♂	♂	♂	54	♂	♂	♂	♂	24	♂	♂	♂	♂	54	♂	♂	♂	♂
Emission Point	25	♂	♂	♂	♂	55	♂	♂	♂	♂	25	♂	♂	♂	♂	55	♂	♂	♂	♂
Stacks	26	♂	♂	♂	♂	56	♂	♂	♂	♂	26	♂	♂	♂	♂	56	♂	♂	♂	♂
	27	♂	♂	♂	♂	57	♂	♂	♂	♂	27	♂	♂	♂	♂	57	♂	♂	♂	♂
Sun Shadow Line	28	♂	♂	♂	♂	58	♂	♂	♂	♂	28	♂	♂	♂	♂	58	♂	♂	♂	♂
Observer's Position	29	♂	♂	♂	♂	59	♂	♂	♂	♂	29	♂	♂	♂	♂	59	♂	♂	♂	♂

Comments:

Bleeder stacks concerning

Visible Emissions Observations- Burns Harbor

Observer: C. Broda

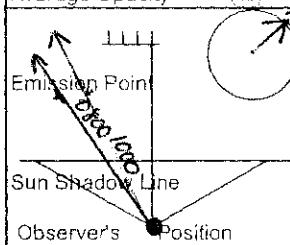
Date: 4-9-09

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Source: C BLAST FURNACE	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Bleeder - BACK DRAFT STACKS	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Observation Point S. E.	1	0	0	0	0	31	0	0	0	0	1	0	0	0	0	31	0	0	0	0
OF STACKS	2	0	0	0	0	32	0	0	0	0	2	0	0	0	0	32	0	0	0	0
Distance From: 900'	3	0	0	0	0	33	0	0	0	0	3	0	0	0	0	33	0	0	0	0
	4	0	0	0	0	34	0	0	0	0	4	0	0	0	0	34	0	0	0	0
Source Height: 150'	5	0	0	0	0	35	0	0	0	0	5	0	0	0	0	35	0	0	0	0
Wind Direction: West	6	0	0	0	0	36	0	0	0	0	6	0	0	0	0	36	0	0	0	0
Wind Speed: 5-10	7	0	0	0	0	37	0	0	0	0	7	0	0	0	0	37	0	0	0	0
Background(s) Used: SKY	8	0	0	0	0	38	0	0	0	0	8	0	0	0	0	38	0	0	0	0
	9	0	0	0	0	39	0	0	0	0	9	0	0	0	0	39	0	0	0	0
	10	0	0	0	0	40	0	0	0	0	10	0	0	0	0	40	0	0	0	0
Sky Conditions: Sunny	11	0	0	0	0	41	0	0	0	0	11	0	0	0	0	41	0	0	0	0
Ambient Temp.: 44°	12	0	0	0	0	42	0	0	0	0	12	0	0	0	0	42	0	0	0	0
Humidity: (50% 50%) >	13	0	0	0	0	43	0	0	0	0	13	0	0	0	0	43	0	0	0	0
Color of Emissions:	14	0	0	0	0	44	0	0	0	0	14	0	0	0	0	44	0	0	0	0
	15	0	0	0	0	45	0	0	0	0	15	0	0	0	0	45	0	0	0	0
Reading Cond.: Good	16	0	0	0	0	46	0	0	0	0	16	0	0	0	0	46	0	0	0	0
Observation	17	0	0	0	0	47	0	0	0	0	17	0	0	0	0	47	0	0	0	0
Began End Ended: 1000	18	0	0	0	0	48	0	0	0	0	18	0	0	0	0	48	0	0	0	0
Observer's Signature:	19	0	0	0	0	49	0	0	0	0	19	0	0	0	0	49	0	0	0	0
C. Broda	20	0	0	0	0	50	0	0	0	0	20	0	0	0	0	50	0	0	0	0
Date Last Certified	21	0	0	0	0	51	0	0	0	0	21	0	0	0	0	51	0	0	0	0
3-11-09	22	0	0	0	0	52	0	0	0	0	22	0	0	0	0	52	0	0	0	0
	23	0	0	0	0	53	0	0	0	0	23	0	0	0	0	53	0	0	0	0
Average Opacity (%)	24	0	0	0	0	54	0	0	0	0	24	0	0	0	0	54	0	0	0	0
Emission Point	25	0	0	0	0	55	0	0	0	0	25	0	0	0	0	55	0	0	0	0
Sun Shadow Line	26	0	0	0	0	56	0	0	0	0	26	0	0	0	0	56	0	0	0	0
Observer's Position	27	0	0	0	0	57	0	0	0	0	27	0	0	0	0	57	0	0	0	0
	28	0	0	0	0	58	0	0	0	0	28	0	0	0	0	58	0	0	0	0
	29	0	0	0	0	59	0	0	0	0	29	0	0	0	0	59	0	0	0	0

Comments:

Bleeder stacks CO min 6 line



Visible Emissions Observations- Burns Harbor

Observer H. Robinson

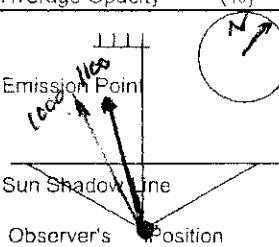
Date 4-9-09

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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BLEEDER - BACKDRAFT STACKS	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Observation Point:	1	0	0	0	0	31	0	0	0	0	1	0	0	0	0	31	0	0	0	0
S.E. of STACKS	2	0	0	0	0	32	0	0	0	0	2	0	0	0	0	32	0	0	0	0
Distance From:	3	0	0	0	0	33	0	0	0	0	3	0	0	0	0	33	0	0	0	0
900 FT	4	0	0	0	0	34	0	0	0	0	4	0	0	0	0	34	0	0	0	0
Source Height: 150 FT	5	0	0	0	0	35	0	0	0	0	5	0	0	0	0	35	0	0	0	0
Wind Direction: WEST	6	0	0	0	0	36	0	0	0	0	6	0	0	0	0	36	0	0	0	0
Wind Speed: 5-10 MPH	7	0	0	0	0	37	0	0	0	0	7	0	0	0	0	37	0	0	0	0
Background(s) Used: SKY	8	0	0	0	0	38	0	0	0	0	8	0	0	0	0	38	0	0	0	0
	9	0	0	0	0	39	0	0	0	0	9	0	0	0	0	39	0	0	0	0
	10	0	0	0	0	40	0	0	0	0	10	0	0	0	0	40	0	0	0	0
Sky Conditions: CLEAR	11	0	0	0	0	41	0	0	0	0	11	0	0	0	0	41	0	0	0	0
Ambient Temp.: 44°	12	0	0	0	0	42	0	0	0	0	12	0	0	0	0	42	0	0	0	0
Humidity: (50%) 50% >	13	0	0	0	0	43	0	0	0	0	13	0	0	0	0	43	0	0	0	0
Color of Emissions:	14	0	0	0	0	44	0	0	0	0	14	0	0	0	0	44	0	0	0	0
	15	0	0	0	0	45	0	0	0	0	15	0	0	0	0	45	0	0	0	0
Reading Cond: Good	16	0	0	0	0	46	0	0	0	0	16	0	0	0	0	46	0	0	0	0
Observation	17	0	0	0	0	47	0	0	0	0	17	0	0	0	0	47	0	0	0	0
Began: 1000 Ended: 1159	18	0	0	0	0	48	0	0	0	0	18	0	0	0	0	48	0	0	0	0
Observer's Signature:	19	0	0	0	0	49	0	0	0	0	19	0	0	0	0	49	0	0	0	0
Harold Robinson	20	0	0	0	0	50	0	0	0	0	20	0	0	0	0	50	0	0	0	0
Date Last Certified	21	0	0	0	0	51	0	0	0	0	21	0	0	0	0	51	0	0	0	0
3-11-09	22	0	0	0	0	52	0	0	0	0	22	0	0	0	0	52	0	0	0	0
	23	0	0	0	0	53	0	0	0	0	23	0	0	0	0	53	0	0	0	0
Average Opacity (%)	24	0	0	0	0	54	0	0	0	0	24	0	0	0	0	54	0	0	0	0
Emission Point	25	0	0	0	0	55	0	0	0	0	25	0	0	0	0	55	0	0	0	0
1111	26	0	0	0	0	56	0	0	0	0	26	0	0	0	0	56	0	0	0	0
Sun Shadow Line	27	0	0	0	0	57	0	0	0	0	27	0	0	0	0	57	0	0	0	0
Observer's Position	28	0	0	0	0	58	0	0	0	0	28	0	0	0	0	58	0	0	0	0
	29	0	0	0	0	59	0	0	0	0	29	0	0	0	0	59	0	0	0	0

Comments:

Bleeder stacks coming long



Visible Emissions Observations- Burns Harbor

Observer C. Broda

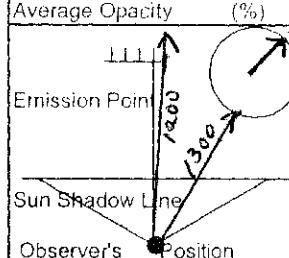
Date 4-9-09

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Source: C-BF Bleeder	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BACK DRAFT STACKS	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Observation Point: SE	1	0	0	0	0	31	0	0	0	0	1	0	0	0	0	31	0	0	0	0
OF STACKS	2	0	0	0	0	32	0	0	0	0	2	0	0	0	0	32	0	0	0	0
Distance From: 900'	3	0	0	0	0	33	0	0	0	0	3	0	0	0	0	33	0	0	0	0
	4	0	0	0	0	34	0	0	0	0	4	0	0	0	0	34	0	0	0	0
Source Height: 150'	5	0	0	0	0	35	0	0	0	0	5	0	0	0	0	35	0	0	0	0
Wind Direction: NORTH	6	0	0	0	0	36	0	0	0	0	6	0	0	0	0	36	0	0	0	0
Wind Speed: 5-10	7	0	0	0	0	37	0	0	0	0	7	0	0	0	0	37	0	0	0	0
Background(s) Used: SKY	8	0	0	0	0	38	0	0	0	0	8	0	0	0	0	38	0	0	0	0
	9	0	0	0	0	39	0	0	0	0	9	0	0	0	0	39	0	0	0	0
	10	0	0	0	0	40	0	0	0	0	10	0	0	0	0	40	0	0	0	0
Sky Conditions: Sunny	11	0	0	0	0	41	0	0	0	0	11	0	0	0	0	41	0	0	0	0
Ambient Temp.: 53°	12	0	0	0	0	42	0	0	0	0	12	0	0	0	0	42	0	0	0	0
Humidity: 60% 50% C	13	0	0	0	0	43	0	0	0	0	13	0	0	0	0	43	0	0	0	0
Color of Emissions:	14	0	0	0	0	44	0	0	0	0	14	0	0	0	0	44	0	0	0	0
	15	0	0	0	0	45	0	0	0	0	15	0	0	0	0	45	0	0	0	0
Reading Cond.: Good	16	0	0	0	0	46	0	0	0	0	16	0	0	0	0	46	0	0	0	0
Observation	17	0	0	0	0	47	0	0	0	0	17	0	0	0	0	47	0	0	0	0
Began/200 Ended: 1400	18	0	0	0	0	48	0	0	0	0	18	0	0	0	0	48	0	0	0	0
Observer's Signature:	19	0	0	0	0	49	0	0	0	0	19	0	0	0	0	49	0	0	0	0
	20	0	0	0	0	50	0	0	0	0	20	0	0	0	0	50	0	0	0	0
Date Last Certified	21	0	0	0	0	51	0	0	0	0	21	0	0	0	0	51	0	0	0	0
	22	0	0	0	0	52	0	0	0	0	22	0	0	0	0	52	0	0	0	0
	23	0	0	0	0	53	0	0	0	0	23	0	0	0	0	53	0	0	0	0
Average Opacity (%)	24	0	0	0	0	54	0	0	0	0	24	0	0	0	0	54	0	0	0	0
Emission Point	25	0	0	0	0	55	0	0	0	0	25	0	0	0	0	55	0	0	0	0
	26	0	0	0	0	56	0	0	0	0	26	0	0	0	0	56	0	0	0	0
	27	0	0	0	0	57	0	0	0	0	27	0	0	0	0	57	0	0	0	0
Sun Shadow Line	28	0	0	0	0	58	0	0	0	0	28	0	0	0	0	58	0	0	0	0
Observer's Position	29	0	0	0	0	59	0	0	0	0	29	0	0	0	0	59	0	0	0	0

Comments:

Bleeder stacks continuing



Visible Emissions Observations- Burns Harbor

Observer: H. ROBINSON

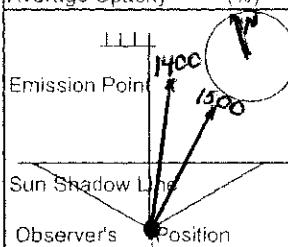
Date: 4-9-09

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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
BLEEDER - BACKDRAFT STACKS	0	O	O	O	O	30	O	O	O	O	0	O	O	O	O	30	O	O	O	O
Observation Point	1	O	O	O	O	31	O	O	O	O	1	O	O	O	O	31	O	O	O	O
SW of STACKS	2	O	O	O	O	32	O	O	O	O	2	O	O	O	O	32	O	O	O	O
Distance From:	3	O	O	O	O	33	O	O	O	O	3	O	O	O	O	33	O	O	O	O
900 FT	4	O	O	O	O	34	O	O	O	O	4	O	O	O	O	34	O	O	O	O
Source Height: 150 FT.	5	O	O	O	O	35	O	O	O	O	5	O	O	O	O	35	O	O	O	O
Wind Direction: NORTH	6	O	O	O	O	36	O	O	O	O	6	O	O	O	O	36	O	O	O	O
Wind Speed: 5-10 MPH	7	O	O	O	O	37	O	O	O	O	7	O	O	O	O	37	O	O	O	O
Background(s) Used: Sky	8	O	O	O	O	38	O	O	O	O	8	O	O	O	O	38	O	O	O	O
	9	O	O	O	O	39	O	O	O	O	9	O	O	O	O	39	O	O	O	O
	10	O	O	O	O	40	O	O	O	O	10	O	O	O	O	40	O	O	O	O
Sky Conditions: CLEAR	11	O	O	O	O	41	O	O	O	O	11	O	O	O	O	41	O	O	O	O
Ambient Temp.: 53°	12	O	O	O	O	42	O	O	O	O	12	O	O	O	O	42	O	O	O	O
Humidity: 50% 50% SL	13	O	O	O	O	43	O	O	O	O	13	O	O	O	O	43	O	O	O	O
Color of Emissions:	14	O	O	O	O	44	O	O	O	O	14	O	O	O	O	44	O	O	O	O
	15	O	O	O	O	45	O	O	O	O	15	O	O	O	O	45	O	O	O	O
Reading Cond.: Good	16	O	O	O	O	46	O	O	O	O	16	O	O	O	O	46	O	O	O	O
Observation	17	O	O	O	O	47	O	O	O	O	17	O	O	O	O	47	O	O	O	O
Began: 1400 Ended: 1559	18	O	O	O	O	48	O	O	O	O	18	O	O	O	O	48	O	O	O	O
Observer's Signature:	19	O	O	O	O	49	O	O	O	O	19	O	O	O	O	49	O	O	O	O
H. Robinson	20	O	O	O	O	50	O	O	O	O	20	O	O	O	O	50	O	O	O	O
Date Last Certified	21	O	O	O	O	51	O	O	O	O	21	O	O	O	O	51	O	O	O	O
3-11-09	22	O	O	O	O	52	O	O	O	O	22	O	O	O	O	52	O	O	O	O
	23	O	O	O	O	53	O	O	O	O	23	O	O	O	O	53	O	O	O	O
Average Opacity (%)	24	O	O	O	O	54	O	O	O	O	24	O	O	O	O	54	O	O	O	O
Emission Point	111	1400	1300	1200	1100	25	O	O	O	O	25	O	O	O	O	55	O	O	O	O
Sun Shadow Line	26	O	O	O	O	56	O	O	O	O	26	O	O	O	O	56	O	O	O	O
Observer's Position	27	O	O	O	O	57	O	O	O	O	27	O	O	O	O	57	O	O	O	O
	28	O	O	O	O	58	O	O	O	O	28	O	O	O	O	58	O	O	O	O
	29	O	O	O	O	59	O	O	O	O	29	O	O	O	O	59	O	O	O	O

Comments:

Bleeder stacks to min 6 LInG



Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date 4-9-09

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Source: C. BF Bleeder	(M) 0	15	30	45	(M) 0	15	30	45	(M) 0	15	30	45	(M) 0	15	30	45	
Back DRAFT stacks	0	0	0	0	30	0	0	0	0	0	0	0	30	0	0	0	0
Observation Point: SW	1	0	0	0	31	0	0	0	0	1	0	0	31	0	0	0	0
OF STACKS	2	0	0	0	32	0	0	0	0	2	0	0	32	0	0	0	0
Distance From: 900'	3	0	0	0	33	0	0	0	0	3	0	0	33	0	0	0	0
Source Height: 150'	4	0	0	0	34	0	0	0	0	4	0	0	34	0	0	0	0
Wind Direction: NORTH	5	0	0	0	35	0	0	0	0	5	0	0	35	0	0	0	0
Wind Speed: 5-10	6	0	0	0	36	0	0	0	0	6	0	0	36	0	0	0	0
Background(s) Used: SKY	7	0	0	0	37	0	0	0	0	7	0	0	37	0	0	0	0
	8	0	0	0	38	0	0	0	0	8	0	0	38	0	0	0	0
	9	0	0	0	39	0	0	0	0	9	0	0	39	0	0	0	0
	10	0	0	0	40	0	0	0	0	10	0	0	40	0	0	0	0
Sky Conditions: Partly Cloudy	11	0	0	0	41	0	0	0	0	11	0	0	41	0	0	0	0
Ambient Temp.: 53°	12	0	0	0	42	0	0	0	0	12	0	0	42	0	0	0	0
Humidity: (50%) 50%	13	0	0	0	43	0	0	0	0	13	0	0	43	0	0	0	0
Color of Emissions:	14	0	0	0	44	0	0	0	0	14	0	0	44	0	0	0	0
	15	0	0	0	45	0	0	0	0	15	0	0	45	0	0	0	0
Reading Cond.: Good	16	0	0	0	46	0	0	0	0	16	0	0	46	0	0	0	0
Observation	17	0	0	0	47	0	0	0	0	17	0	0	47	0	0	0	0
Began: 1600 Ended: 1800	18	0	0	0	48	0	0	0	0	18	0	0	48	0	0	0	0
Observer's Signature:	19	0	0	0	49	0	0	0	0	19	0	0	49	0	0	0	0
C. Broda	20	0	0	0	50	0	0	0	0	20	0	0	50	0	0	0	0
Date Last Certified	21	0	0	0	51	0	0	0	0	21	0	0	51	0	0	0	0
3-11-09	22	0	0	0	52	0	0	0	0	22	0	0	52	0	0	0	0
	23	0	0	0	53	0	0	0	0	23	0	0	53	0	0	0	0
Average Opacity (%)	24	0	0	0	54	0	0	0	0	24	0	0	54	0	0	0	0
Emission Point	25	0	0	0	55	0	0	0	0	25	0	0	55	0	0	0	0
	26	0	0	0	56	0	0	0	0	26	0	0	56	0	0	0	0
	27	0	0	0	57	0	0	0	0	27	0	0	57	0	0	0	0
Sun Shadow Line	28	0	0	0	58	0	0	0	0	28	0	0	58	0	0	0	0
Observer's Position	29	0	0	0	59	0	0	0	0	29	0	0	59	0	0	0	0

Comments:

Bleeder stacks coming in
NO SUN 1700

Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date 4-9-09

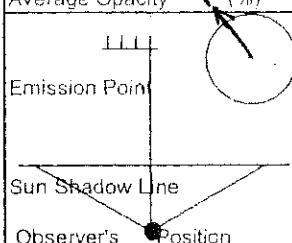
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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
<u>C-BF-Bleeder</u>	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	
<u>BACK DRAFT STACKS</u>	1	0	0	0	0	31	0	0	0	0	1	0	0	0	0	0	0	0	0	
<u>Observation Point: SW</u>	2	0	0	0	0	32	0	0	0	0	2	0	0	0	0	0	0	0	0	
<u>OF STACKS</u>	3	0	0	0	0	33	0	0	0	0	3	0	0	0	0	0	0	0	0	
<u>Distance From: 900'</u>	4	0	0	0	0	34	0	0	0	0	4	0	0	0	0	0	0	0	0	
<u>Source Height: 150'</u>	5	0	0	0	0	35	0	0	0	0	5	0	0	0	0	0	0	0	0	
<u>Wind Direction: NORTH</u>	6	0	0	0	0	36	0	0	0	0	6	0	0	0	0	0	0	0	0	
<u>Wind Speed: 5-10</u>	7	0	0	0	0	37	0	0	0	0	7	0	0	0	0	0	0	0	0	
<u>Background(s) Used: SKY</u>	8	0	0	0	0	38	0	0	0	0	8	0	0	0	0	0	0	0	0	
	9	0	0	0	0	39	0	0	0	0	9	0	0	0	0	0	0	0	0	
	10	0	0	0	0	40	0	0	0	0	10	0	0	0	0	0	0	0	0	
<u>Sky Conditions: OverCAST</u>	11	0	0	0	0	41	0	0	0	0	11	0	0	0	0	0	0	0	0	
<u>Ambient Temp: 48°</u>	12	0	0	0	0	42	0	0	0	0	12	0	0	0	0	0	0	0	0	
<u>Humidity: 50% 50% <</u>	13	0	0	0	0	43	0	0	0	0	13	0	0	0	0	0	0	0	0	
<u>Color of Emissions:</u>	14	0	0	0	0	44	0	0	0	0	14	0	0	0	0	0	0	0	0	
	15	0	0	0	0	45	0	0	0	0	15	0	0	0	0	0	0	0	0	
<u>Reading Cond.: Good</u>	16	0	0	0	0	46	0	0	0	0	16	0	0	0	0	0	0	0	0	
<u>Observation</u>	17	0	0	0	0	47	0	0	0	0	17	0	0	0	0	0	0	0	0	
<u>Began 1800 Ended: 1923</u>	18	0	0	0	0	48	0	0	0	0	18	0	0	0	0	0	0	0	0	
<u>Observer's Signature:</u>	19	0	0	0	0	49	0	0	0	0	19	0	0	0	0	0	0	0	0	
<u>C Broda</u>	20	0	0	0	0	50	0	0	0	0	20	0	0	0	0	0	0	0	0	
<u>Date Last Certified</u>	21	0	0	0	0	51	0	0	0	0	21	0	0	0	0	0	0	0	0	
<u>3-11-09</u>	22	0	0	0	0	52	0	0	0	0	22	0	0	0	0	0	0	0	0	
	23	0	0	0	0	53	0	0	0	0	23	END Read								
<u>Average Opacity ↗ (%)</u>	24	0	0	0	0	54	0	0	0	0	24									
	25	0	0	0	0	55	0	0	0	0	25									
<u>Emission Point</u>	26	0	0	0	0	56	0	0	0	0	26									
	27	0	0	0	0	57	0	0	0	0	27									
<u>Sun Shadow Line</u>	28	0	0	0	0	58	0	0	0	0	28									
<u>Observer's Position</u>	29	0	0	0	0	59	0	0	0	0	29									

Comments:

Bleeder stacks comingling

NO SUN 1800



Visible Emissions Observations- Burns Harbor

Observer: C Broda

Date 3-26-09

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Source: C BLAST FURNACE	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Bleeder stacks	0				30					0	8	8	8	8	30	0	8	8	8	
Observation Point: EAST	1				31					1	8	8	8	8	31	8	8	8	8	
OF C-BLAST Furnace	2				32					2	8	8	8	8	32	10	8	8	8	
Distance From: 500'	3				33					3	8	8	8	8	33	8	8	8	8	
	4				34					4	8	8	8	8	34	-	-	-	-	
Source Height: 200'	5				35					5	8	8	8	8	35	-	-	8	8	
Wind Direction: South	6				36					6	8	8	8	8	36	10	10	-	-	
Wind Speed: 5-10	7				37					7	8	8	8	8	37	10	10	8	8	
Background(s) Used: SKY	8				38					8	8	8	8	8	38	-	8	8	-	
	9				39					9	8	8	8	8	39	10	10	8	-	
	10				40					10	8	8	8	8	40	8	10	-	-	
Sky Conditions: OVERCAST	11				41	8	8	8	8	11	8	8	8	8	41	-	-	10	8	
Ambient Temp.: 44°	12				42	8	8	8	8	12	8	8	8	8	42	-	-	-	-	
Humidity: (50%) (50%) >	13				43	8	8	8	8	13	8	8	8	8	43	10	8	8	-	
Color of Emissions: Brown	14				44	8	8	8	8	14	8	8	8	8	44	-	10	10	8	
	15				45	8	8	8	8	15	8	8	8	8	45	10	10	10	10	
Reading Cond.: Good	16				46	8	8	8	8	16	8	8	8	8	46	10	10	10	10	
Observation	17				47	8	8	8	8	17	8	8	8	8	47	10	10	10	10	
Began 041 Ended 0800	18				48	8	8	8	8	18	8	8	8	8	48	8	8	8	8	
Observer's Signature:	19				49	8	8	8	8	19	8	10	10	8	49	8	8	8	8	
C Broda	20				50	8	8	8	8	20	10	10	10	8	50	8	8	8	8	
Date Last Certified	21				51	8	8	8	8	21	10	8	8	8	51	8	8	8	8	
3-11-09	22				52	8	8	8	8	22	8	8	8	8	52	8	8	8	8	
	23				53	8	8	8	8	23	8	8	8	8	53	8	8	8	8	
Average Opacity (%)	24				54	8	8	8	8	24	8	8	8	8	54	8	10	10	8	
Emission Point	25				55	8	8	8	8	25	8	8	8	8	55	10	10	-	8	
	26				56	8	8	8	8	26	8	8	8	8	56	8	8	8	8	
	27				57	8	8	8	8	27	8	8	8	8	57	8	10	10	-	
Sun Shadow Line	28				58	8	8	8	8	28	10	10	10	10	58	-	10	10	10	
Observer's Position	29				59	8	8	8	8	29	10	0	0	0	59	-	0	-	10	

Comments: 0650 WIND-NORTH WEST
0655 WIND-South
— CO mingle with wind box stack

Visible Emissions Observations- Burns Harbor

Observer: C. Breda

Date: 3-26-09

Page 2 of 9

Source	C BLAST FURNACE	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Bleeder Stacks		0	-	8	8	8	30					0					30				
Observation Point	EAST OF	1	10	10	10	10	31					1					31				
C-BLAST FURNACE		2	10	10	10	10	32					2					32				
Distance From:	500'	3	10	10	10	10	33					3					33				
		4	8	8	8	8	34					4					34				
Source Height:	200'	5	8	8	8	8	35					5					35				
Wind Direction:	South	6	8	8	8	8	36					6					36				
Wind Speed:	5-10	7	10	10	10	10	37					7					37				
Background(s) Used:	Sky	8	-	10	-	10	38					8					38				
		9	-	-	10	10	39					9					39				
		10	-	-	10	-	40					10					40				
Sky Conditions:	Overcast	11	10	-	-	-	41					11					41				
Ambient Temp.:	44°	12	10	-	-	10	42					12					42				
Humidity: (50%) 50% >		13	10	10	10	10	43					13					43				
Color of Emissions:	Brown	14	10	10	10	10	44					14					44				
		15	10	10	-	-	45					15					45				
Reading Cond.:	Good	16	-	10	10	8	46					16					46				
Observation		17	10	10	10	10	47					17					47				
Began: 0800 Ended: 0823		18	8	8	8	8	48					18					48				
Observer's Signature:		19	8	8	8	8	49					19					49				
		20	8	8	8	8	50					20					50				
Date Last Certified		21	8	8	8	8	51					21					51				
		22	8	8	8	8	52					22					52				
		23	8	8	8	8	53					23					53				
Average Opacity (%)		24					54					24					54				
Emission Point		25					55					25					55				
		26					56					26					56				
		27					57					27					57				
		28					58					28					58				
		29					59					29					59				
Sun Shadow Line																					
Observer's Position																					

Comments: ~ CO MINGLE WITH WIND BOX STACK



Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date 3-26-09

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Source: <u>C Blast Furnace</u>	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Bleeder stacks	0					30	8	0	0	8	0	8	0	8	0	30	8	0	-	-
Observation Point <u>SE OF</u>	1					31	8	0	8	8	1	8	0	8	0	31	8	-	-	-
<u>C-B.F.</u>	2					32	8	0	8	8	2	8	0	-	-	32	8	-	-	-
Distance From: <u>1000'</u>	3					33	8	0	8	8	3	-	-	8	0	33	-	-	-	-
	4					34	8	0	8	8	4	8	-	8	0	34	8	0	-	-
Source Height: <u>200'</u>	5					35	-	-	-	-	5	-	8	0	8	35	-	8	-	-
Wind Direction: <u>SE</u>	6					36	-	-	-	-	6	8	0	8	0	36	8	0	8	0
Wind Speed: <u>5-10</u>	7					37	-	-	-	-	7	8	0	8	0	37	8	0	8	0
Background(s) Used: <u>SKY</u>	8					38	-	-	8	-	8	8	0	8	0	38	-	8	0	8
	9					39	8	0	8	8	9	8	0	8	0	39	8	0	8	0
	10					40	8	0	8	8	10	8	0	8	0	40	-	-	8	-
Sky Conditions: <u>OVERCAST</u>	11					41	8	0	8	8	11	8	0	8	0	41	8	-	8	0
Ambient Temp: <u>44°</u>	12					42	8	0	8	8	12	8	0	8	0	42	-	8	0	-
Humidity: (50%) <u>(50%) ></u>	13					43	8	0	8	8	13	8	0	8	0	43	-	8	0	8
Color of Emissions:	14					44	8	0	8	8	14	8	0	8	0	44	8	0	8	0
	15					45	8	0	8	8	15	8	0	8	0	45	8	0	8	0
Reading Cond.: <u>Good</u>	16					46	8	0	8	8	16	8	0	8	0	46	8	0	8	0
Observation	17					47	8	0	8	8	17	8	0	-	-	47	8	0	8	0
Began <u>0824</u> Ended: <u>1000</u>	18					48	8	0	8	8	18	-	-	-	-	48	8	0	8	0
Observer's Signature:	19					49	8	0	8	8	19	-	-	-	-	49	8	0	8	0
<u>C. Broda</u>	20					50	8	0	8	8	20	8	0	8	0	50	8	0	8	0
Date Last Certified	21					51	8	0	8	8	21	-	-	-	-	51	8	0	8	0
<u>3-11-09</u>	22					52	8	0	8	8	22	-	-	-	-	52	8	0	8	0
	23					53	8	0	8	8	23	-	-	-	-	53	8	0	8	0
Average Opacity (%)	24	8	0	8	8	54	0	0	0	8	24	-	-	-	-	54	8	0	8	0
Emission Point	25	8	0	8	8	55	0	0	0	8	25	-	-	-	-	55	8	0	8	0
	26	8	0	8	8	56	0	0	0	8	26	-	-	-	-	56	8	0	8	0
Sun Shadow Line	27	8	0	8	8	57	0	0	0	8	27	-	-	-	-	57	8	0	8	0
Observer's Position	28	8	0	8	8	58	0	0	0	8	28	-	-	-	-	58	8	0	8	0
	29	8	0	8	8	59	0	0	0	8	29	-	8	0	8	59	8	0	8	0

Comments: - CO MINGLE with WIND Box Stack

- Moved Reading position 0824
0845 wind west

Visible Emissions Observations- Burns Harbor

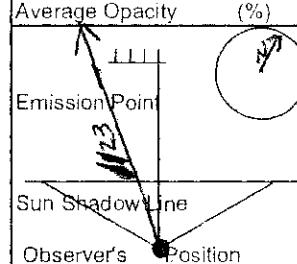
Observer: C. Broda

Date 3-26-09

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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Bleeder Stacks	0	○	○	○	○	30	○	○	○	○	0	○	○	○	○	30	○	○	○	○
Observation Point: S.E.	1	○	○	○	○	31	○	○	○	○	1	○	○	○	○	31	○	○	○	○
of C-B.F.	2	○	○	○	○	32	○	○	○	○	2	○	○	○	○	32	○	○	○	○
Distance From: 1000'	3	○	○	○	-	33	○	○	○	○	3	○	○	○	○	33	○	○	○	○
	4	-	○	○	-	34	○	○	○	○	4	○	○	○	○	34	○	○	○	○
Source Height: 200'	5	-	-	-	-	35	○	○	○	○	5	○	○	○	○	35	○	○	○	○
Wind Direction: West	6	-	○	○	○	36	○	○	○	○	6	○	○	○	○	36	○	○	○	○
Wind Speed: 5-10	7	○	-	○	○	37	○	○	○	○	7	○	○	○	○	37	○	○	○	○
Background(s) Used: SKY	8	○	○	○	○	38	○	○	○	○	8	○	○	○	○	38	○	○	○	○
	9	○	○	○	○	39	○	○	○	○	9	○	○	○	○	39	○	○	○	○
	10	○	-	-	-	40	○	○	○	○	10	○	○	○	○	40	○	○	○	○
Sky Conditions: Overcast	11	-	-	-	-	41	○	○	○	○	11	○	○	○	○	41	○	○	○	○
Ambient Temp: 49°	12	-	-	○	○	42	○	○	○	○	12	○	○	○	○	42	○	○	○	○
Humidity: (50%) 60% >	13	○	○	○	○	43	○	○	○	○	13	○	○	○	○	43	○	○	○	○
Color of Emissions:	14	○	○	○	○	44	○	○	○	○	14	○	○	○	○	44	○	○	○	○
	15	○	○	○	○	45	○	○	○	○	15	○	○	○	○	45	○	○	○	○
Reading Cond.: Good	16	○	○	○	○	46	○	○	○	○	16	○	○	○	○	46	○	○	○	○
Observation	17	○	○	○	○	47	○	○	○	○	17	○	○	○	○	47	○	○	○	○
Began/1000 Ended/1200	18	○	○	○	○	48	○	○	○	○	18	○	○	○	○	48	○	○	○	○
Observer's Signature:	19	○	○	○	○	49	○	○	○	○	19	○	○	○	○	49	○	○	○	○
C. Broda	20	○	○	○	○	50	○	○	○	○	20	○	○	○	○	50	○	○	○	○
Date Last Certified	21	○	○	○	○	51	○	○	○	○	21	○	○	○	○	51	○	○	○	○
3-11-09	22	○	○	○	○	52	○	○	○	○	22	○	○	○	○	52	○	○	○	○
	23	○	○	○	-	53	○	○	○	○	23	○	○	○	○	53	○	○	○	○
Average Opacity (%)	24	○	○	○	○	54	○	○	○	○	24	○	○	○	○	54	○	○	○	○
Emission Point	25	○	○	○	○	55	○	○	○	○	25	○	○	○	○	55	○	○	○	○
Sun Shadow Line	26	○	○	○	○	56	○	○	○	○	26	○	○	○	○	56	○	○	○	○
Observer's Position	27	○	○	○	○	57	○	○	○	○	27	○	○	○	○	57	○	○	○	○
	28	○	○	○	○	58	○	○	○	○	28	○	○	○	○	58	○	○	○	○
	29	○	○	○	○	59	○	○	○	○	29	○	○	○	○	59	○	○	○	○

Comments: - 60 minutes with wind box stack



Visible Emissions Observations- Burns Harbor

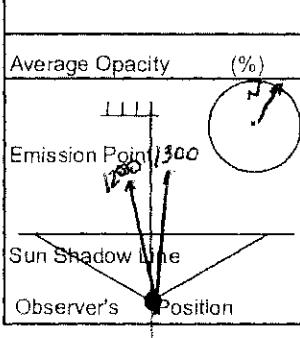
Observer: H. ROBINSON

Date 3-26-09

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Source: <u>C-BLAST Founte</u>	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
<u>BLEEDER STACKS</u>	0	O ^B	O ^B	O ^B	O ^B	30	O ^B	O ^B	O ^B	O ^B	0	O ^B	O ^B	O ^B	O ^B	30	O ^B	O ^B	O ^B	O ^B
Observation Point: <u>SE</u>	1	O ^B	O ^B	O ^B	O ^B	31	O ^B	O ^B	O ^B	O ^B	1	O ^B	O ^B	O ^B	O ^B	31	O ^B	O ^B	O ^B	O ^B
<u>of C-Blast Furnace</u>	2	O ^B	O ^B	O ^B	O ^B	32	O ^B	O ^B	O ^B	O ^B	2	O ^B	O ^B	O ^B	O ^B	32	O ^B	O ^B	O ^B	O ^B
Distance From: <u>1,000 ft</u>	3	O ^B	O ^B	O ^B	O ^B	33	O ^B	O ^B	O ^B	O ^B	3	O ^B	O ^B	O ^B	O ^B	33	O ^B	O ^B	O ^B	O ^B
	4	O ^B	O ^B	O ^B	O ^B	34	O ^B	O ^B	O ^B	O ^B	4	O ^B	O ^B	O ^B	O ^B	34	O ^B	O ^B	O ^B	O ^B
Source Height: <u>200ft</u>	5	O ^B	O ^B	O ^B	O ^B	35	O ^B	O ^B	O ^B	O ^B	5	O ^B	O ^B	O ^B	O ^B	35	O ^B	O ^B	O ^B	O ^B
Wind Direction: <u>WEST</u>	6	O ^B	O ^B	O ^B	O ^B	36	O ^B	O ^B	O ^B	O ^B	6	O ^B	O ^B	O ^B	O ^B	36	O ^B	O ^B	O ^B	O ^B
Wind Speed: <u>5-10</u>	7	O ^B	O ^B	O ^B	O ^B	37	O ^B	O ^B	O ^B	O ^B	7	O ^B	O ^B	O ^B	O ^B	37	O ^B	O ^B	O ^B	O ^B
Background(s) Used: <u>Sky</u>	8	O ^B	O ^B	O ^B	O ^B	38	O ^B	O ^B	O ^B	O ^B	8	O ^B	O ^B	O ^B	O ^B	38	O ^B	O ^B	O ^B	O ^B
	9	O ^B	O ^B	O ^B	O ^B	39	O ^B	O ^B	O ^B	O ^B	9	O ^B	O ^B	O ^B	O ^B	39	O ^B	O ^B	O ^B	O ^B
	10	O ^B	O ^B	O ^B	O ^B	40	O ^B	O ^B	O ^B	O ^B	10	O ^B	O ^B	O ^B	O ^B	40	O ^B	O ^B	O ^B	O ^B
Sky Conditions: <u>Partly Cloudy</u>	11	O ^B	O ^B	O ^B	O ^B	41	O ^B	O ^B	O ^B	O ^B	11	O ^B	O ^B	O ^B	O ^B	41	O ^B	O ^B	O ^B	O ^B
Ambient Temp.: <u>49°</u>	12	O ^B	O ^B	O ^B	O ^B	42	O ^B	O ^B	O ^B	O ^B	12	O ^B	O ^B	O ^B	O ^B	42	O ^B	O ^B	O ^B	O ^B
Humidity: (50%) 50% <u>7</u>	13	O ^B	O ^B	O ^B	O ^B	43	O ^B	O ^B	O ^B	O ^B	13	O ^B	O ^B	O ^B	O ^B	43	O ^B	O ^B	O ^B	O ^B
Color of Emissions:	14	O ^B	O ^B	O ^B	O ^B	44	O ^B	O ^B	O ^B	O ^B	14	O ^B	O ^B	O ^B	O ^B	44	O ^B	O ^B	O ^B	O ^B
	15	O ^B	O ^B	O ^B	O ^B	45	O ^B	O ^B	O ^B	O ^B	15	O ^B	O ^B	O ^B	O ^B	45	O ^B	O ^B	O ^B	O ^B
Reading Cond.: <u>Good</u>	16	O ^B	O ^B	O ^B	O ^B	46	O ^B	O ^B	O ^B	O ^B	16	O ^B	O ^B	O ^B	O ^B	46	O ^B	O ^B	O ^B	O ^B
Observation	17	O ^B	O ^B	O ^B	O ^B	47	O ^B	O ^B	O ^B	O ^B	17	O ^B	O ^B	O ^B	O ^B	47	O ^B	O ^B	O ^B	O ^B
Began: <u>1200</u> Ended: <u>1359</u>	18	O ^B	O ^B	O ^B	O ^B	48	O ^B	O ^B	O ^B	O ^B	18	O ^B	O ^B	O ^B	O ^B	48	O ^B	O ^B	O ^B	O ^B
Observer's Signature: <u>Harold Robinson</u>	19	O ^B	O ^B	O ^B	O ^B	49	O ^B	O ^B	O ^B	O ^B	19	O ^B	O ^B	O ^B	O ^B	49	O ^B	O ^B	O ^B	O ^B
Date Last Certified	20	O ^B	O ^B	O ^B	O ^B	50	O ^B	O ^B	O ^B	O ^B	20	O ^B	O ^B	O ^B	O ^B	50	O ^B	O ^B	O ^B	O ^B
<u>3-11-09</u>	21	O ^B	O ^B	O ^B	O ^B	51	O ^B	O ^B	O ^B	O ^B	21	O ^B	O ^B	O ^B	O ^B	51	O ^B	O ^B	O ^B	O ^B
	22	O ^B	O ^B	O ^B	O ^B	52	O ^B	O ^B	O ^B	O ^B	22	O ^B	O ^B	O ^B	O ^B	52	O ^B	O ^B	O ^B	O ^B
	23	O ^B	O ^B	O ^B	O ^B	53	O ^B	O ^B	O ^B	O ^B	23	O ^B	O ^B	O ^B	O ^B	53	O ^B	O ^B	O ^B	O ^B
Average Opacity (%)	24	O ^B	O ^B	O ^B	O ^B	54	O ^B	O ^B	O ^B	O ^B	24	O ^B	O ^B	O ^B	O ^B	54	O ^B	O ^B	O ^B	O ^B
Emission Point <u>300</u>	25	O ^B	O ^B	O ^B	O ^B	55	O ^B	O ^B	O ^B	O ^B	25	O ^B	O ^B	O ^B	O ^B	55	O ^B	O ^B	O ^B	O ^B
<u>1111</u>	26	O ^B	O ^B	O ^B	O ^B	56	O ^B	O ^B	O ^B	O ^B	26	O ^B	O ^B	O ^B	O ^B	56	O ^B	O ^B	O ^B	O ^B
<u>SS</u>	27	O ^B	O ^B	O ^B	O ^B	57	O ^B	O ^B	O ^B	O ^B	27	O ^B	O ^B	O ^B	O ^B	57	O ^B	O ^B	O ^B	O ^B
<u>Sun Shadow Line</u>	28	O ^B	O ^B	O ^B	O ^B	58	O ^B	O ^B	O ^B	O ^B	28	O ^B	O ^B	O ^B	O ^B	58	O ^B	O ^B	O ^B	O ^B
Observer's Position	29	O ^B	O ^B	O ^B	O ^B	59	O ^B	O ^B	O ^B	O ^B	29	O ^B	O ^B	O ^B	O ^B	59	O ^B	O ^B	O ^B	O ^B

Comments:



Visible Emissions Observations- Burns Harbor

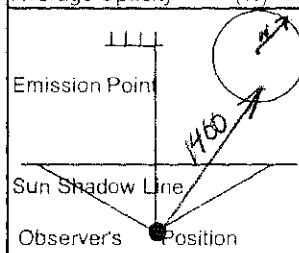
Observer: C. Broda

Date 3-26-09

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Source: C-Blast Furnace	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Bleeder Stack	0	0	0	0	0	30	0	0	0	0	0						30			
Observation Point: S.E. of	1	0	0	0	0	31	0	0	0	0	1						31			
C-B.F.	2	0	0	0	0	32	0	0	0	0	2						32			
Distance From 1000'	3	0	0	0	0	33	0	0	0	0	3						33			
	4	0	0	0	0	34	0	0	0	0	4						34			
Source Height: 200'	5	0	0	0	0	35	0	0	0	0	5						35			
Wind Direction: West	6	0	0	0	0	36	0	0	0	0	6						36			
Wind Speed: 5-10	7	0	0	0	0	37	0	0	0	0	7						37			
Background(s) Used: SKY	8	0	0	0	0	38	0	0	0	0	8						38			
	9	0	0	0	0	39	0	0	0	0	9						39			
	10	0	0	0	0	40	0	0	0	0	10						40			
Sky Conditions: Partly Cloudy	11	0	0	0	0	41	0	0	0	0	11						41			
Ambient Temp.: 49°	12	0	0	0	0	42	0	0	0	0	12						42			
Humidity: (50%) 50% >	13	0	0	0	0	43	0	0	0	0	13						43			
Color of Emissions:	14	0	0	0	0	44	0	0	0	0	14						44			
	15	0	0	0	0	45	0	0	0	0	15						45			
Reading Cond: Good	16	0	0	0	0	46	0	0	0	0	16						46			
Observation	17	0	0	0	0	47	0	0	0	0	17						47			
Began 1400 Ended 1500	18	0	0	0	0	48	0	0	0	0	18						48			
Observer's Signature: C. Broda	19	0	0	0	0	49	0	0	0	0	19						49			
	20	0	0	0	0	50	0	0	0	0	20						50			
Date Last Certified	21	0	0	0	0	51	0	0	0	0	21						51			
3-11-09	22	0	0	0	0	52	0	0	0	0	22						52			
	23	0	0	0	0	53	0	0	0	0	23						53			
Average Opacity (%)	24	0	0	0	0	54	0	0	0	0	24						54			
Emission Point	25	0	0	0	0	55	0	0	0	0	25						55			
	26	0	0	0	0	56	0	0	0	0	26						56			
	27	0	0	0	0	57	0	0	0	0	27						57			
Sun Shadow Line	28	0	0	0	0	58	0	0	0	0	28						58			
Observer's Position	29	0	0	0	0	59	0	0	0	0	29						59			

Comments:



Visible Emissions Observations- Burns Harbor

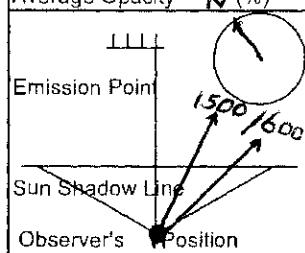
Observer: H Robinson

Date 3-26-09

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Source: C Blast Furnace	(M) 0	15	30	45	(M) 0	15	30	45	(M) 0	15	30	45	(M) 0	15	30	45
BLEEDER STACKS	0	O B	O B	O B	30	O B	O B	O B	0	O B	O B	O B	30	O B	O B	O B
Observation Point:	1	O B	O B	O B	31	O B	O B	O B	O B	O B	O B	O B	31	O B	O B	O B
SSW of stacks	2	O B	O B	O B	32	O B	O B	O B	O B	O B	O B	O B	32	O B	O B	O B
Distance From: 1000ft.	3	O B	O B	O B	33	O B	O B	O B	O B	O B	O B	O B	33	O B	O B	O B
	4	O B	O B	O B	34	O B	O B	O B	O B	O B	O B	O B	34	O B	O B	O B
Source Height: 200ft.	5	O B	O B	O B	35	O B	O B	O B	O B	O B	O B	O B	35	O B	O B	O B
Wind Direction NNE	6	O B	O B	O B	36	O B	O B	O B	O B	O B	O B	O B	36	O B	O B	O B
Wind Speed: 5-10 mph	7	O B	O B	O B	37	O B	O B	O B	O B	O B	O B	O B	37	O B	O B	O B
Background(s) Used: Sky	8	O B	O B	O B	38	O B	O B	O B	O B	O B	O B	O B	38	O B	O B	O B
	9	O B	O B	O B	39	O B	O B	O B	O B	O B	O B	O B	39	O B	O B	O B
	10	O B	O B	O B	40	O B	O B	O B	O B	O B	O B	O B	40	O B	O B	O B
Sky Conditions: CLEAR	11	O B	O B	O B	41	O B	O B	O B	O B	O B	O B	O B	41	O B	O B	O B
Ambient Temp.: 55°	12	O B	O B	O B	42	O B	O B	O B	O B	O B	O B	O B	42	O B	O B	O B
Humidity: (50%) 50% >	13	O B	O B	O B	43	O B	O B	O B	O B	O B	O B	O B	43	O B	O B	O B
Color of Emissions:	14	O B	O B	O B	44	O B	O B	O B	O B	O B	O B	O B	44	O B	O B	O B
	15	O B	O B	O B	45	O B	O B	O B	O B	O B	O B	O B	45	O B	O B	O B
Reading Cond.: Good	16	O B	O B	O B	46	O B	O B	O B	O B	O B	O B	O B	46	O B	O B	O B
Observation	17	O B	O B	O B	47	O B	O B	O B	O B	O B	O B	O B	47	O B	O B	O B
Began: 1500 Ended: 1659	18	O B	O B	O B	48	O B	O B	O B	O B	O B	O B	O B	48	O B	O B	O B
Observer's Signature:	19	O B	O B	O B	49	O B	O B	O B	O B	O B	O B	O B	49	O B	O B	O B
<i>David Robinson</i>	20	O B	O B	O B	50	O B	O B	O B	O B	O B	O B	O B	50	O B	O B	O B
Date Last Certified	21	O B	O B	O B	51	O B	O B	O B	O B	O B	O B	O B	51	O B	O B	O B
3-11-09	22	O B	O B	O B	52	O B	O B	O B	O B	O B	O B	O B	52	O B	O B	O B
	23	O B	O B	O B	53	O B	O B	O B	O B	O B	O B	O B	53	O B	O B	O B
Average Opacity N (%)	24	O B	O B	O B	54	O B	O B	O B	O B	O B	O B	O B	54	O B	O B	O B
Emission Point	25	O B	O B	O B	55	O B	O B	O B	O B	O B	O B	O B	55	O B	O B	O B
	26	O B	O B	O B	56	O B	O B	O B	O B	O B	O B	O B	56	O B	O B	O B
	27	O B	O B	O B	57	O B	O B	O B	O B	O B	O B	O B	57	O B	O B	O B
Sun Shadow Line	28	O B	O B	O B	58	O B	O B	O B	O B	O B	O B	O B	58	O B	O B	O B
Observer's Position	29	O B	O B	O B	59	O B	O B	O B	O B	O B	O B	O B	59	O B	O B	O B

Comments:



Visible Emissions Observations- Burns Harbor

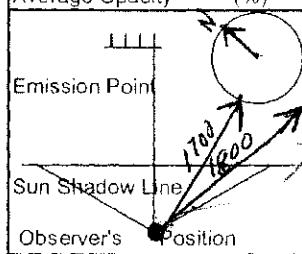
Observer: C. Broda

Date 3-26-09

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Source	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Breeder stacks	0	O B O O	B B B B	B B B B	B B B B	30	O B B B	B B B B	B B B B	B B B B	0	O B O O	B B B B	B B B B	B B B B	30	O B O O	B B B B	B B B B	B B B B
Observation Point: SW	1	O B B B	B B B B	B B B B	B B B B	31	O B B B	B B B B	B B B B	B B B B	1	O B B B	B B B B	B B B B	B B B B	31	O B B B	B B B B	B B B B	B B B B
of Bleeders	2	B B B B	B B B B	B B B B	B B B B	32	B B B B	B B B B	B B B B	B B B B	2	B B B B	B B B B	B B B B	B B B B	32	B B B B	B B B B	B B B B	B B B B
Distance From: 1500'	3	B B B B	B B B B	B B B B	B B B B	33	B B B B	B B B B	B B B B	B B B B	3	B B B B	B B B B	B B B B	B B B B	33	B B B B	B B B B	B B B B	B B B B
	4	B B B B	B B B B	B B B B	B B B B	34	B B B B	B B B B	B B B B	B B B B	4	B B B B	B B B B	B B B B	B B B B	34	B B B B	B B B B	B B B B	B B B B
Source Height: 200'	5	B B B B	B B B B	B B B B	B B B B	35	B B B B	B B B B	B B B B	B B B B	5	B B B B	B B B B	B B B B	B B B B	35	B B B B	B B B B	B B B B	B B B B
Wind Direction: SW	6	B B B B	B B B B	B B B B	B B B B	36	B B B B	B B B B	B B B B	B B B B	6	B B B B	B B B B	B B B B	B B B B	36	B B B B	B B B B	B B B B	B B B B
Wind Speed: 5-10	7	B B B B	B B B B	B B B B	B B B B	37	B B B B	B B B B	B B B B	B B B B	7	B B B B	B B B B	B B B B	B B B B	37	B B B B	B B B B	B B B B	B B B B
Background(s) Used: SKY	8	B B B B	B B B B	B B B B	B B B B	38	B B B B	B B B B	B B B B	B B B B	8	B B B B	B B B B	B B B B	B B B B	38	B B B B	B B B B	B B B B	B B B B
	9	B B B B	B B B B	B B B B	B B B B	39	B B B B	B B B B	B B B B	B B B B	9	B B B B	B B B B	B B B B	B B B B	39	B B B B	B B B B	B B B B	B B B B
	10	B B B B	B B B B	B B B B	B B B B	40	B B B B	B B B B	B B B B	B B B B	10	B B B B	B B B B	B B B B	B B B B	40	B B B B	B B B B	B B B B	B B B B
Sky Conditions Partly Cloudy	11	O B O O	O B O O	O B O O	O B O O	41	O B O O	O B O O	O B O O	O B O O	11	O B O O	O B O O	O B O O	O B O O	41	O B O O	O B O O	O B O O	O B O O
Ambient Temp.: 56°	12	O B O O	O B O O	O B O O	O B O O	42	O B O O	O B O O	O B O O	O B O O	12	O B O O	O B O O	O B O O	O B O O	42	O B O O	O B O O	O B O O	O B O O
Humidity: (50%) 50% ⁷	13	— — —	O B	O B	O B	43	— — —	O B	O B	O B	13	— — —	O B	O B	O B	43	— — —	O B	O B	O B
Color of Emissions:	14	O B O O	O B O O	O B O O	O B O O	44	O B O O	O B O O	O B O O	O B O O	14	O B O O	O B O O	O B O O	O B O O	44	O B O O	O B O O	O B O O	O B O O
	15	B B B B	B B B B	B B B B	B B B B	45	B B B B	B B B B	B B B B	B B B B	15	B B B B	B B B B	B B B B	B B B B	45	B B B B	B B B B	B B B B	B B B B
Reading Cond.: Good	16	O B O O	O B O O	O B O O	O B O O	46	O B O O	O B O O	O B O O	O B O O	16	O B O O	O B O O	O B O O	O B O O	46	O B O O	O B O O	O B O O	O B O O
Observation	17	B B B B	B B B B	B B B B	B B B B	47	B B B B	B B B B	B B B B	B B B B	17	B B B B	B B B B	B B B B	B B B B	47	B B B B	B B B B	B B B B	B B B B
Began: 1700 Ended: 1859	18	O B O O	O B O O	O B O O	O B O O	48	— — —	O B	O B	O B	18	O B O O	O B O O	O B O O	O B O O	48	— — —	O B	O B	O B
Observer's Signature:	19	— — —	O B	O B	O B	49	— — —	O B	O B	O B	19	O B O O	O B O O	O B O O	O B O O	49	O B O O	O B O O	O B O O	O B O O
	20	O B O O	O B O O	O B O O	O B O O	50	O B O O	O B O O	O B O O	O B O O	20	O B O O	O B O O	O B O O	O B O O	50	O B O O	O B O O	O B O O	O B O O
Date Last Certified	21	O B O O	O B O O	O B O O	O B O O	51	O B O O	O B O O	O B O O	O B O O	21	O B O O	O B O O	O B O O	O B O O	51	O B O O	O B O O	O B O O	O B O O
3-11-09	22	O B O O	O B O O	O B O O	O B O O	52	O B O O	O B O O	O B O O	O B O O	22	O B O O	O B O O	O B O O	O B O O	52	O B O O	O B O O	O B O O	O B O O
	23	— — —	O B	O B	O B	53	O B O O	O B O O	O B O O	O B O O	23	O B O O	O B O O	O B O O	O B O O	53	O B O O	O B O O	O B O O	O B O O
Average Opacity (%)	24	B B B B	B B B B	B B B B	B B B B	54	B B B B	B B B B	B B B B	B B B B	24	B B B B	B B B B	B B B B	B B B B	54	B B B B	B B B B	B B B B	B B B B
Emission Point	25	B B B B	B B B B	B B B B	B B B B	55	B B B B	B B B B	B B B B	B B B B	25	B B B B	B B B B	B B B B	B B B B	55	B B B B	B B B B	B B B B	B B B B
	26	O B O O	O B O O	O B O O	O B O O	56	B B B B	B B B B	B B B B	B B B B	26	B B B B	B B B B	B B B B	B B B B	56	B B B B	B B B B	B B B B	B B B B
Sun Shadow Line	27	O B O O	O B O O	O B O O	O B O O	57	O B O O	O B O O	O B O O	O B O O	27	B B B B	B B B B	B B B B	B B B B	57	B B B B	B B B B	B B B B	B B B B
Observer's Position	28	O B O O	O B O O	O B O O	O B O O	58	O B O O	O B O O	O B O O	O B O O	28	B B B B	B B B B	B B B B	B B B B	58	B B B B	B B B B	B B B B	B B B B
	29	O B O O	O B O O	O B O O	O B O O	59	O B O O	O B O O	O B O O	O B O O	29	B B B B	B B B B	B B B B	B B B B	59	B B B B	B B B B	B B B B	B B B B

Comments:



Visible Emissions Observations- Burns Harbor

Observer: C. Broda

Date 3-26-09

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Source: C-BLAST Furnace	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45	(M)	0	15	30	45
Bleeder Stacks	0	-	B	-	-	30					0					30				
Observation Point: SW	1	O	B	B	B	31					1					31				
OF Bleeders	2	O	B	B	B	32					2					32				
Distance From: 1500'	3	O	B	B	B	33					3					33				
	4	O	B	B	B	34					4					34				
Source Height: 200'	5	B	B	B	B	35					5					35				
Wind Direction: West	6	B	B	B	B	36					6					36				
Wind Speed: 5-10	7	B	B	B	B	37					7					37				
Background(s) Used: SKY	8	B	B	B	B	38					8					38				
	9					39					9					39				
	10					40					10					40				
Sky Conditions: Partly Cloudy	11					41					11					41				
Ambient Temp.: 50°	12					42					12					42				
Humidity: (50%) 60%	13					43					13					43				
Color of Emissions:	14					44					14					44				
	15					45					15					45				
Reading Cond.: Good	16					46					16					46				
Observation	17					47					17					47				
Began 100 Ended 1909	18					48					18					48				
Observer's Signature:	19					49					19					49				
C. Broda	20					50					20					50				
Date Last Certified	21					51					21					51				
3-11-09	22					52					22					52				
	23					53					23					53				
Average Opacity (%)	24					54					24					54				
Emission Point	25					55					25					55				
	26					56					26					56				
	27					57					27					57				
Sun Shadow Line	28					58					28					58				
Observer's Position	29					59					29					59				

Comments: NO SUN 1900